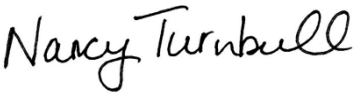
This DELTA Doctoral Project, CA Quits: Redesigning the Health Care System to Combat California's Smoking Disparities, presented by Angela "Jackie" Kaslow, and submitted to the Faculty of the Harvard T.H. Chan School of Public Health in Partial Fulfillment of the Requirements for the Degree of Doctor of Public Health, has been read and approved by:



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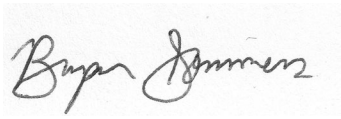

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CA Quits: Redesigning the Health Care System to Combat California's Smoking Disparities

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ABSTRACT

Over the last fifty years, the adult smoking rate in the United States (US) declined dramatically, from 42 to 15.5 percent. Despite this success, smoking remains the single leading cause of preventable death and disease in the nation. In addition, smoking has emerged as a disparity among population subgroups—with higher smoking rates among groups that are disproportionately low-income, burdened with adverse health and social conditions, and represent racial/ethnic and other minorities. For example, the prevalence of smoking among the US American Indian/Alaskan Natives population is nearly 40 percent or 2.6 times higher than the national average. The smoking prevalence among individuals diagnosed with “Serious psychological distress” is approximately 36 percent, greater than twice the national average and among the subset of the population who has achieved education attainment of a GED, the smoking prevalence is 40 percent.

As such, new strategies are needed to reach smokers and further tobacco control goals. The state of California is leading this effort with the longest standing, publicly funded tobacco control program in the nation: the California Tobacco Control Program (CTCP). The CTCP has used cutting-edge strategies to reduce smoking rates and has recently adopted a new paradigm, the “End Game”. The End Game aspires to achieve 0% smoking by 2035. This goal is ambitious given the state’s number of smokers, currently: 3.2 million. To reach these smokers, the CTCP proposes a novel strategy: engage safety net health care systems to help cessation efforts. This concept, a decade in development, is realized in the CA Quits project. This DELTA project is a

formative evaluation of CA Quits, a CTCP-funded health care redesign initiative that proposes to steward collaborations between three stakeholder sectors: public health departments, Medicaid insurance plans, and safety net health care systems. Together, these systems will support the integration of evidence-based smoking cessation treatments into safety net clinical settings. The project theory of change is Collective Impact (CI) which posits that large-scale societal problems are best resolved using cross-sector stakeholder collaborations focused on a singular goal. CI is the latest framework identified in "coalition" and "participatory action research" literature. Two questions addressed by this DELTA project are: 1) Are stakeholder incentives sufficiently aligned to motivate participation in the CA Quits project? and 2) Is Collective Impact theory applicable to the CA Quits concept and targeted stakeholders? Qualitative methods are used to assess the alignment of CA Quits' goals with sectors' goals. The results demonstrate that multisector stakeholder incentives sufficiently align, but, require tailoring for each sector. The results also demonstrate that CI is an appropriate change theory. Key lessons learned are that there are significant barriers and drivers for addressing smoking among populations burdened with smoking disparities. The primary drivers are: Government, funder and leadership mandates which provide a structural impetus to address smoking. The primary barriers are: local politics, emerging recreational marijuana use, and social determinants, each of which confounds effective intervening.

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I. INTRODUCTION

Few health behaviors are as historically rooted, iconic, and controversial as smoking. At its peak in the mid-1960s, more than 42 percent of the US adult population smoked (National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health 2014). However, several events—including the landmark publication, "Surgeon General's Report" (1964), revealing the dangers of smoking, public battles with the tobacco industry, and population-level public health initiatives—helped shift norms to anti-smoking (Cummings 2014). This shift parallels a steady decline in the national smoking rate to a low of 15.5 percent by 2016 (Jamal 2018). Despite these successes, smoking remains entrenched among low-income and minority populations, and groups that struggle with a variety of health, social and financial challenges (Centers for Disease Control and Prevention-Smoking 2017; Martire 2017; Bearnot 2018). It is, therefore, necessary to address smoking among these groups using the lens of addiction and in the context of low socio-economic status (Centers for Disease Control and Prevention-Tips for Former Smokers 2018). Smoking as an addiction, is a pernicious compulsion that creates both physiological and psychological dependence while compromising overall health, including exacerbating co-morbid conditions (National Cancer Institute 2014; American Heart Association. 2014; Jha 2013). Moreover, dependence is exaggerated in those struggling with mental illness, disabilities, and stressful life circumstances—each a prominent issue among low-income populations (Banham 2010; Ziedonis 2006). From this perspective, clinical health care providers in publicly funded, safety net systems have an essential role in managing smoking (Schroeder 2005; Rigotti 2002). In addition, because smoking worsens health conditions, health care costs rise (Max 2016). As such, government funders and insurance entities alike have a vested interest in addressing smoking. Finally, because smoking unequally affects populations

with greater impact on the most vulnerable, there is an ethical impetus for public health action (Centers for Disease Control and Prevention-Low Socioeconomic Status 2018).

To date, national efforts to mitigate smoking have centered on policy and norm change strategies (Centers for Disease Control and Prevention-Best Practices 2014). However, in 2009, the California Tobacco Control Program (CTCP) proposed expanding its strategies to include engaging health care system providers to address the topic with patients (Roeseler, et al 2010). This concept requires significant systems redesign, including training providers and staff members to assess and advise on treatments, such as nicotine replacement therapies (NRT) and refer patients to cessation supports such as the California Smoker's Helpline (Helpline) and, in-person counseling. It also relies on accessible, available, evidence-based, cessation therapies and community resources that provide a continuum of care beyond clinical settings. Ideally, health care providers would provide needed NRT and systematically refer patients to the Helpline. To implement and deliver these seemingly straightforward treatments depends on a complex set of supports: information technology in the form of secure web-based referrals that meet government standards for protected health information, new work flows, insurance benefits coverage for NRT and counseling, and leadership buy-in. As a result, full development of this CTCP concept was impeded until the passage and implementation of the Affordable Care Act (2010-14), and subsequent state level tobacco control legislation in California (2016) that introduced mandates to improve health care system infrastructure and insurance coverage, including smoking cessation treatment benefits.

In sum, engaging cross-sector health care system partners is a promising population-level strategy to eliminate smoking, yet it is still at an intermediary stage. An additional step forward occurred when the CTCP funded the University of California, Davis, Medical Center (UCD),

located in Sacramento, California to conduct a prototype initiative, "Building CA Quits: A Tobacco Learning Collaborative". This project was piloted from October 2016 to March 2018. In June 2018, the CTCP allocated additional funding for a scaled-up, statewide version of the pilot project: "CA Quits," for a 5-year period. As with the pilot project, the UCD Medical Center was awarded the contract for CA Quits and is the host organization for this DELTA project. The CA Quits project uses an integration strategy, where supports from each targeted stakeholder sector are woven together to create a continuum of smoking cessation care. Such care starts with assessing smoking status with every patient, at every encounter, and continues by coordinating access to cessation support through partnering organizations. This type of integration and redesign within and across sectors is technical, relational, interdependent, and requires leadership support.

This DELTA project is a formative evaluation of the CA Quits statewide health care system, tobacco treatment, redesign initiative. A formative evaluation is a process of assessing the alignment of a project's concepts, activities, and aims (Stetler 2006). Formative evaluation tests project assumptions to identify potential problem areas and then adjusts project activities where needed (Geonnotti 2013). The value of a formative evaluation lies in addressing potential misalignment *prior* to project launch, thereby, mitigating delays and inefficiencies, and increasing the potential for success (Zapka 2004).

This DELTA project was undertaken from November 2017 to May 2018, before the launch of the CA Quits project in June 2018. Consequently, a formative evaluation was timely and relevant, particularly because the underlying concepts for CA Quits build on ideas that are still in development rather than ones that have been well studied and validated. Moreover, CA Quits relies greatly on presumed target stakeholder sector interests, priorities, and capabilities.

While well-founded, these premises need to be confirmed to ensure the success of the project. To this end, the formative evaluation aims to examine and elucidate multisector stakeholder incentives and disincentives to prioritize and target smoking behaviors. The formative evaluation will also assess the viability of the CA Quits proposed project change theory: Collective Impact (CI), since it underlies the use of multisector collaborations. CI is a framework used to enable multilateral, large-scale social change. It posits that structured components are required for multisector collaborative efforts to successfully achieve a singular goal. It is the latest framework identified in "coalition" and "participatory action research" literature and was first formally articulated in a 2011 Stanford Social Innovation Review article (Kania 2011). Central to CI is the idea that the creation of lasting solutions to large-scale social problems requires multiple sectors and organizations (government agencies, non-profits, community members, private individuals and organizations, etc.) to work together towards a clearly defined goal. This approach stands in contrast to isolated impact approaches where organizations work independently to solve problems seen as important to them individually (Kania 2011). Conversely, CI suggests that organizations should form cross-sector coalitions to make meaningful and sustainable progress on issues of shared concern.

CI has five components, each of which is integral to a successful CI-informed initiative. All project activities should serve or contribute to at least one of these five components. The CI developers, Kania & Kramer (2011), articulate these as:

1. Common agenda: All participants have a shared vision for change, one that includes a common understanding of the problem and a joint approach to solving it through agreed-upon actions.

2. Shared measurement systems: Collecting data and measuring results consistently across all the participants ensures shared measurement for alignment and accountability.
3. Mutually reinforcing activities: A plan of action that outlines and coordinates the activities of each participant.
4. Open and continuous communication: Needed across the many players to build trust, assure mutual objectives, and create common motivation.
5. A backbone organization: An entity with the staff and specific skill sets to serve the entire initiative and coordinate participating organizations and agencies.

CA Quits views itself as the "backbone support organization" of the project and an extension of the CTCP. With five years of CTCP funding, CA Quits will serve as a health care system redesign technical assistance entity and is well-positioned to lead and organize systems-level collaborative processes. CA Quits assumes that the five framework components of the CI model are a good fit for guiding health care systems redesign concepts, approaches, and activities. This is partially based on other CI-based tobacco-free initiatives. One example is a CI project implemented in San Francisco, California, where several local health organizations and education groups collaborated to combat high tobacco advertising and availability in neighborhood corner stores (Flood 2015). Another example is a CI model undertaken by the Massachusetts Prevention and Wellness Trust Fund (2013), where multisector partnerships, mainly among public health entities were effectively used to address public health issues including tobacco cessation, by increasing linkages to community supports (Land 2010; Land 2010). The CA Quits concept assumes that the CI framework and theory are a good fit with health sector stakeholders beyond public health departments and that its principles are aligned

with the targeted sectors' expectations and normative practices for working with external partners.

This DELTA project aims to answer two questions: 1) Are provider and partner stakeholder (dis)incentives sufficiently aligned to undertake a tobacco cessation treatment systems redesign initiative? and, 2) Is the CI model theory of change appropriate for the multisector collaborations needed to make CA Quits successful?

This thesis is organized as follows: Section II, Background, provides information on tobacco's history in the US and how California has confronted tobacco related health behaviors. Section III, Methods, describes the study design in detail, a qualitative study using key informant interviews. Section IV, Results, describes nine overarching themes that emerged from the interviews. Section V is a discussion of my recommendations for the CA Quits program. Finally, Section VI is the conclusion.

II. BACKGROUND

A. America's Tobacco History

IN THE BEGINNING . . .

Huron Indian myth has it that in ancient times, when the land was barren, and the people were starving, the Great Spirit sent forth a woman to save humanity. As she traveled over the world, everywhere her right hand touched the soil, there grew potatoes. And everywhere her left hand touched the soil, there grew corn. And when the world was rich and fertile, she sat down and rested. When she arose, there grew tobacco (Borio 1993).

Nicotiana tabacum, more commonly known as tobacco, is the primary constituent in cigarettes and similar smokable products, including cigars, cigarillos, and pipe tobacco. These uniquely American inventions are tied to and parallel the rise of the United States and other colonial

powers (Best 1979). Among tobacco products, cigarettes have an especially complex and checkered place in this history. At their apex they were a symbol of style, status, and sophistication, but now have the dubious distinction of being the number one cause of preventable death and related disease in the US (National Center for Chronic Disease Prevention and Health Promotion. Office on Smoking and Health 2014).

Public health disparities today are often tied to social, political, and economic policies of the past, of which smoking is a classic example (Kunitz 2016; Barry 1991; Perkins 1988). This Native American "medicine" (Winter 2000) was transformed into the commodity "big tobacco," evoking images of the transnational corporate industrial complex, questionable business practices, and class action lawsuits. In 1950, the *Journal of the American Medical Association* published a seminal and unambiguous case against smoking and a catalyst for further scientific inquiry (Wynder 1950). Within a decade hundreds of reports and investigations followed, linking cancer and smoking (Hecht 2003). Scientific evidence began to turn the tide on the tobacco industry, but undoing the intricately woven US tobacco history, political and economic interests, social norms, and physiological and behavioral addictions requires colossal public health, scientific, and medical profession counter efforts. Several important initiatives have been instrumental in shifting the momentum towards anti-smoking (see Figure 1).

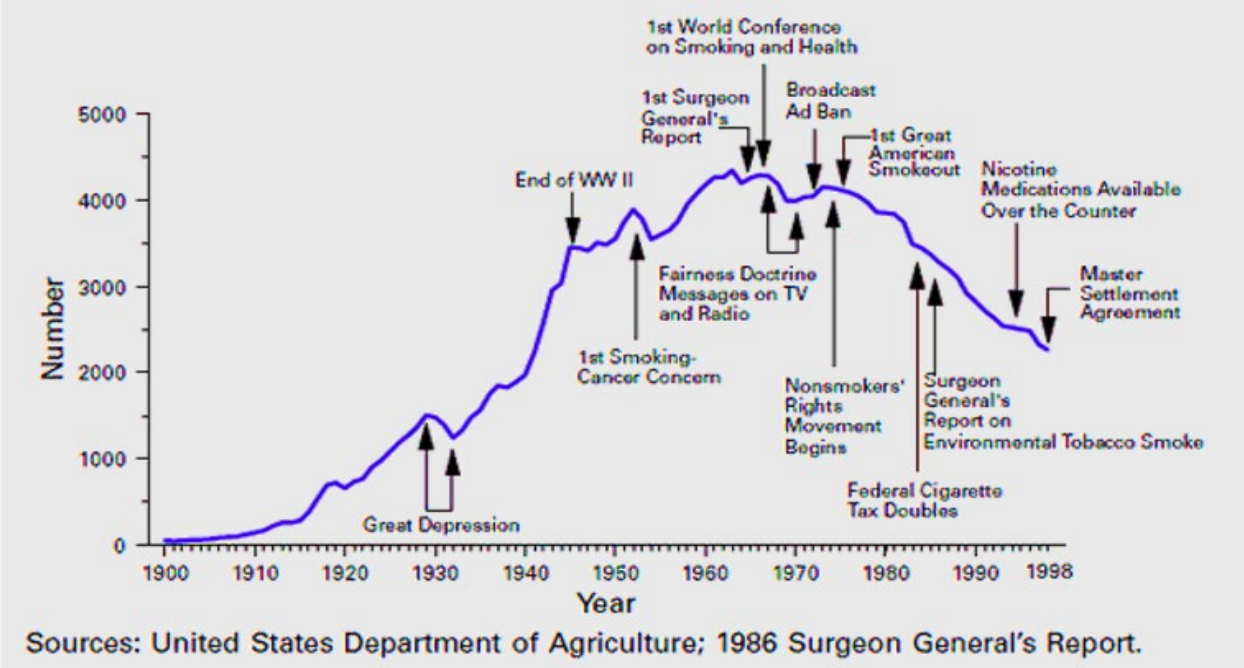


Figure 1. Annual adult per capita cigarette consumption and major smoking and health events (United States, 1900–1998)

By 2016, legal challenges exposed tobacco industry deception, product lethality, and the practice of targeting youth (Brandt 1990 and 2011; Drope 2001). Broad-scale public health approaches, that included social marketing campaigns, smoke-free policies, and taxes on tobacco products, contributed to remarkable successes in behavior and social norm change (Centers for Disease Control and Prevention-Best Practices 2014). Meanwhile, "big tobacco" maintains a substantial economic position with estimated US cigarette product shipments at nearly 4 billion as of 2016 (Figure 2. Statistica 2018).

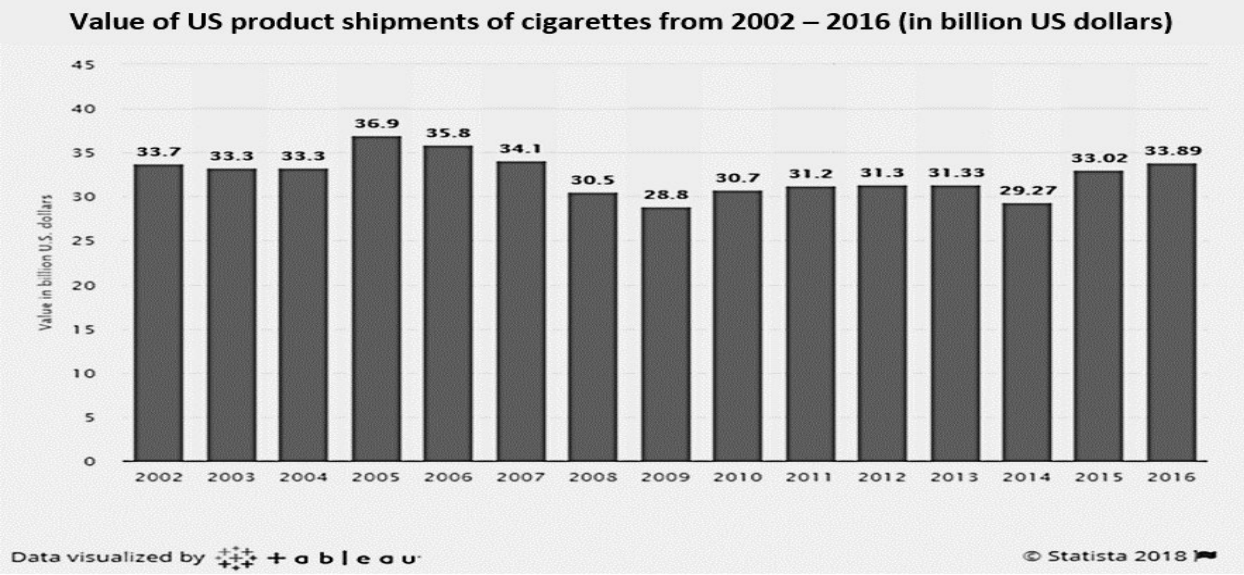


Figure 2. Value of US Product Shipment of Cigarettes

Moreover, in response to the increasing anti-smoking/tobacco use public health efforts the tobacco industry has actively diversified its product lines to include noncombustible electronic nicotine delivery devices used in vaping nicotine (e-cigarettes, e-cigars, and e-pipes) (Marynak 2017; Wang 2018). Sales of these products are rapidly increasing (see Figure 3).

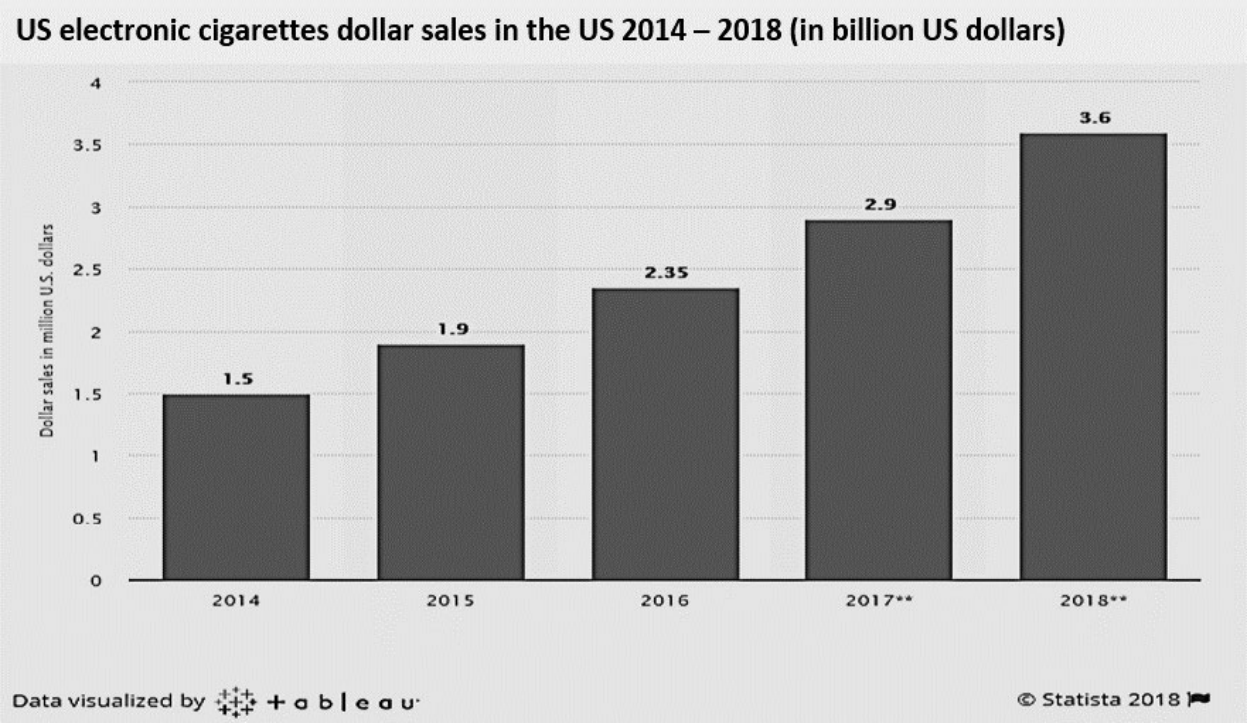


Figure 3. Electronic cigarette (e-cigarette) US Sales, 2014 - 2018

The scale of use and economic impact of cigarette consumption in the US can be better understood by comparing it to another product that is highly regulated, legally restricted to adult use, and has potential adverse health impacts when smoked: Marijuana. The legal recreational marijuana market is rapidly growing and, according to 10 year estimates, is expected to reach approximately 11 billion dollars by 2025 (Figure 4).

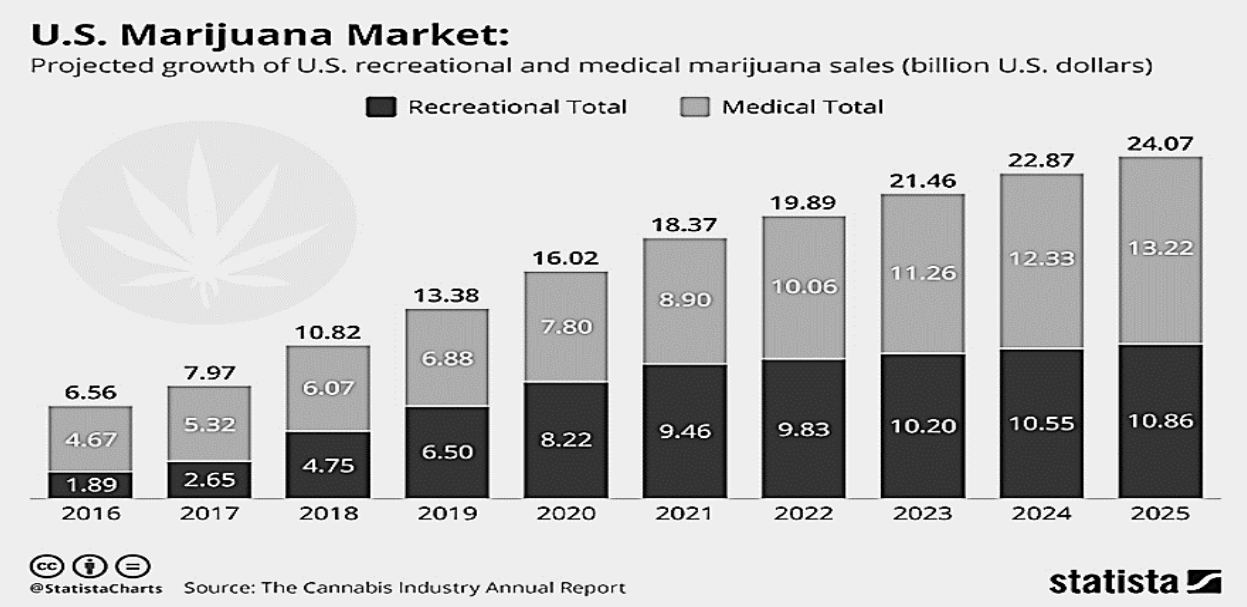


Figure 4. Marijuana Market- US Sales, 2014 - 2018

Using year 2016 figures, cigarette products sales dwarf those of other smokable products. Notably, smoking remains the leading cause of preventable death and disease in the US, responsible for more than 480,000 (1 of every 5) deaths each year (Centers for Disease Control and Prevention-Health Effects 2017) As recently as 2014, the US Surgeon General's report characterized smoking as a national epidemic.[1]

[1] An estimated 36.5 million adults smoke cigarettes, and 16 million Americans live with smoking-related diseases (National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health 2014). These estimates do not account for second-hand smoke exposure, which can have substantial impacts on non-smoking individuals, including children (Orton 2014). The American Heart Association indicates that cigarette smoking is a major cause of heart disease. Smokers are at significant risk for a variety of cancers including: lung,

The current US smoking rate is 15.5 percent (Office of Disease Prevention and Health Promotion-Healthy People 2020 2014)[2]; however, the significant decline in smoking since the 1960s obscures the uneven results among population groups. The title of a 2013 *Washington Post* article illustrates the characteristics of current smokers: "America's new tobacco crisis: The rich stopped smoking, the poor didn't" (Wan 2013). Has interim success unintentionally diverted attention from vulnerable populations? Have we lost sight of the intractability of the problem and its proximal causes? The national rate conceals local and regional differences in smoking. Table 1 summarizes US smoking disparities and reveals the basis for pursuing the research questions raised in this DELTA project (Centers for Disease Control and Prevention-STATE 2015).

Table 1. 2016, US Smoking Data: Burden of Tobacco Use (Jamal 2018, *Drope 2018)[3]

By:	**Lowest Rate**	**Highest Rate**
State	8.8% (Utah)	24.8% (West Virginia)
Federal poverty level	10.4% (>400% FPL)*	25.3% (<100% FPL)
Education level	4.5% (=graduate degree)	40% (= GED)
Race	9% Asian	31.8% American Indian
Disability/limitation	14.4% (No)	21.2% (Yes)
Serious psychological distress (Diagnosed Adults)	14.7% (No)	35.8% (Yes)
Gender (Centers for Disease Control and Prevention-Low Socioeconomic Status 2018)	13.5% (Female)	17.5% (Male)
Sexual orientation	15.3% (Heterosexual)	20.9% (Homosexual)

throat, bladder, liver, pancreas, stomach, cervix, colon, and acute myeloid leukemia" (National Cancer Institute 2014). Smoking also introduces health risks to those proximal to smokers, who are exposed to second- or even third-hand smoke e.g., contact with smoking residues left on surfaces, fixtures, and furnishings). Those at risk include fetuses, babies, and children (DiFranza 2014). Among women who gave birth in 2016, 7.2 percent smoked during pregnancy (Drake 2016). Health impacts on fetuses due to maternal smoking include infant death, preterm birth, and low birth weight (Hackshaw 2011) as well as birth defects, such as cleft lip and palate (Jaddoe 2008, Wehby 2011). Post-natal health is also compromised, and may include respiratory illness and infections, delayed neurological development, and elevated risk of tobacco dependence (Buka 2003).

[2] The Healthy People 2020 objective for the adult smoking is a rate of 12 percent by 2020.

[3] Current cigarette smoking:>100 cigarettes smoked during lifetime; plus smoking every day or some days (Centers for Disease Control and Prevention-Low Socioeconomic Status 2018).

The Centers for Disease Control and Prevention (Centers for Disease Control and Prevention-Health Effects 2017) indicate that populations characterized as low socioeconomic status ("SES") are subject to worse smoking-related outcomes:

- Cigarette smoking disproportionately affects the health of people with low SES. Lower income cigarette smokers suffer more from diseases caused by smoking than do smokers with higher incomes (Campaign for Tobacco-Free Kids 2015).
- Lower-income populations have less access to health care, making it more likely that they are diagnosed at later stages of diseases and conditions (Singh 2011).
- Populations in the most socioeconomically deprived groups have higher lung cancer risk than those in the most affluent groups (Singh 2011).
- People with less than a high school education have higher lung cancer incidence than those with a college education (Campaign for Tobacco-Free Kids 2015).
- People living in rural, deprived areas have 18–20 percent higher rates of lung cancer than people living in urban areas (Singh 2011).
- People with family incomes of less than $12,500 have higher lung cancer incidence than those with family incomes of $50,000 or more (Clegg 2009)

These data reaffirm that smoking today is a complex addiction that creates physiological and psychological dependence leading to considerable negative health consequences, particularly, for low income, low SES populations. Smoking dependence thus further exacerbates the tenuous health status of populations wrestling with a variety of health and social challenges (Bearnot 2018). What is not illuminated by the data are the barriers to quitting for low SES groups, which may include: lack of insurance coverage, limited insurance coverage benefits for quit aids such as nicotine replacement therapies and smoking cessation counseling, lack of

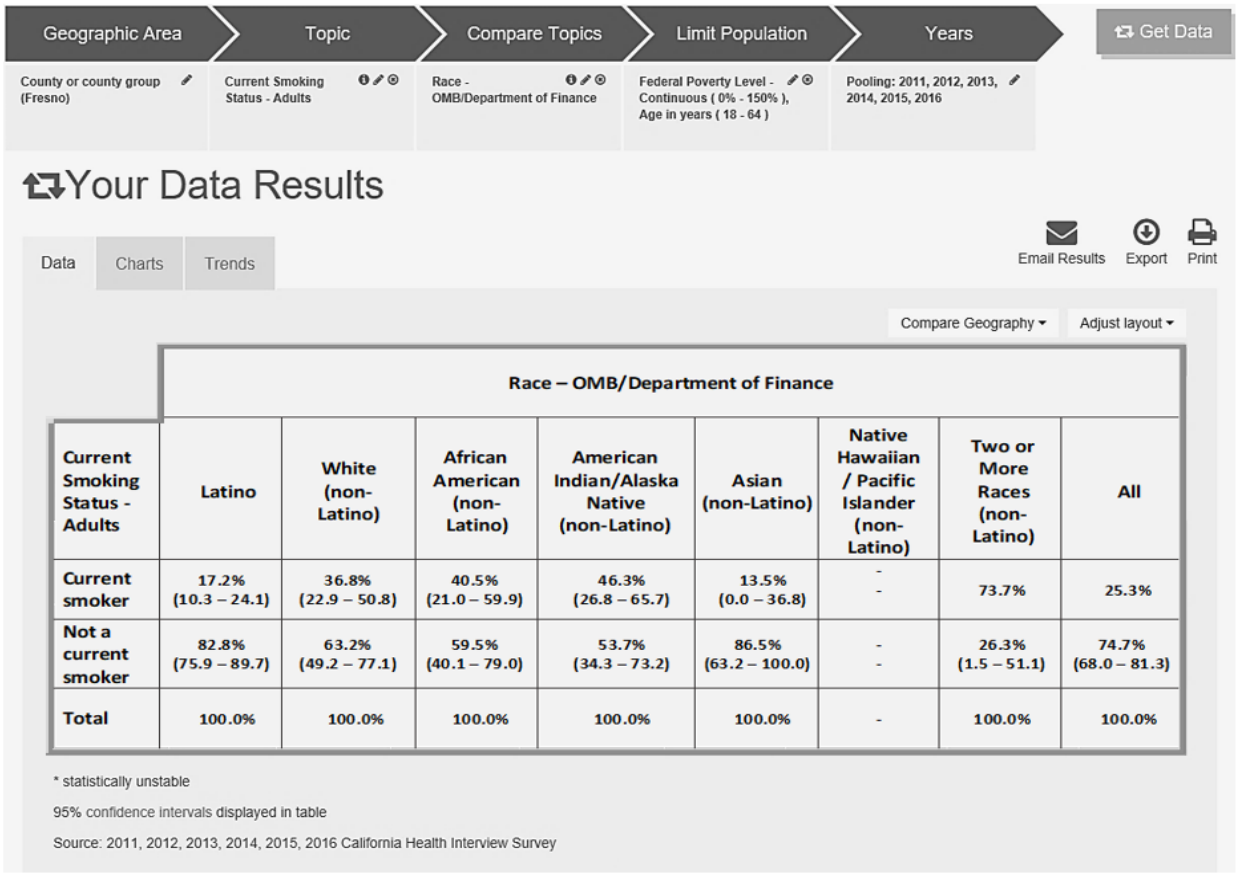
knowledge of quit resources and treatments, and the difficulty of quitting given co-addictions, life stressors, other health problems, or adverse social determinants (Banham 2010; Ziedonis 2006). Even less attention is given to retooling health care delivery systems to support hard-to-reach groups and vulnerable populations or to better understand the drivers of smoking behaviors.

Thus, to further reduce smoking rates requires insights about the context, treatment, supports and approaches that bolster quit attempts among low SES populations (Community Guide 2012; Farmer 2012; Cummings 2009). Just as important is the need to understand how health care systems can improve intervening in smoking behaviors when they are treated as a complex addiction that is perhaps worsened by socio-economic context. In an era of tenuous health care coverage and rising costs, it is likely that the *individual* is blamed for their "health behaviors" without factoring in the *context* and other determinants of such behaviors.

B. California

At 11 percent, California has the second lowest adult smoking rate in the nation, behind Utah (Centers for Disease Control and Prevention-BRFSS 2015). However, California is also the most populous state in the nation which equates to 3.2 million adult smokers, more than the total population of 21 states (California Department of Public Health, Tobacco Control Program-Facts & Figures 2017). Notably, California's smoking related demographics largely mirror those at the national level. Adult smoking is concentrated among low-income populations who comprise nearly forty percent of the state's smokers, and disparities persist by race, gender and sexual orientation (Roeseler, et al 2010; California Department of Public Health, Tobacco Control Program-Facts & Figures 2017).

State smoking data disaggregated at the county level reveal rates as high as 28 percent, rivaling the highest state rates in the nation (California Department of Public Health, California Tobacco Control Program-Facts and Figures 2016; Centers for Disease Control and Prevention-STATE 2015; University of California Los Angeles-California Health Interview Survey 2011). When stratified by county, socioeconomic status and racial group, estimates can increase dramatically. An example of this variation is shown in Figure 5 with smoking rates in Fresno County, a rural area of central California characterized by low SES and racial diversity. As shown, there is five-fold difference in smoking rates across the county's racial groups.



	Race – OMB/Department of Finance							
Current Smoking Status - Adults	Latino	White (non-Latino)	African American (non-Latino)	American Indian/Alaska Native (non-Latino)	Asian (non-Latino)	Native Hawaiian / Pacific Islander (non-Latino)	Two or More Races (non-Latino)	All
Current smoker	17.2% (10.3 – 24.1)	36.8% (22.9 – 50.8)	40.5% (21.0 – 59.9)	46.3% (26.8 – 65.7)	13.5% (0.0 – 36.8)	- -	73.7%	25.3%
Not a current smoker	82.8% (75.9 – 89.7)	63.2% (49.2 – 77.1)	59.5% (40.1 – 79.0)	53.7% (34.3 – 73.2)	86.5% (63.2 – 100.0)	- -	26.3% (1.5 – 51.1)	74.7% (68.0 – 81.3)
Total	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%	100.0%

* statistically unstable

95% confidence intervals displayed in table

Source: 2011, 2012, 2013, 2014, 2015, 2016 California Health Interview Survey

Figure 5. California Health Interview Survey (CHIS) Data Results (2011-2016) Smoking disparities by low-income and race, example Fresno County

Longitudinal data from the CTCP (2016) demonstrates the differential effectiveness of public health smoking cessation efforts on population subgroup declines over two decades, as summarized in Table 2. This information reveals significant and intransigent smoking disparities among certain groups and perhaps the need for innovative, targeted and tailored approaches to reach those who lack responsiveness to public health strategies generally used.

Table 2. California Adult Smoking Rates (and % Change) by Race

Race/Ethnicity	2001	2013/14	% Change
White	19.4%	14.8%	-23.7%
Hispanic	20.8%	15.0%	-27.9%
Asian	21.3%	15.6%	-26.8%
African American	23.4%	20.0%	-14.5%
American Indian/Alaska Native	37.2%	36.2%	-2.7%

Source: 2016 CTCP report: California Tobacco Facts and Figures 2016

Smoking prevalence in California is highest among the uninsured population at 19.7 percent followed by the Medi-Cal (the state Medicaid program) population at 17.8 percent (California Department of Public Health, Tobacco Control Program-Facts & Figures 2017).[4] Smoking-related Medi-Cal health care spending in California is estimated at $3.58 billion annually (Xu 2015). Putting this into perspective, this cost exceeds the state public health department's most recent annual budget (7/1/17-6/30/18) which was $3.2 billion" (Campaign for Tobacco Free Kids-Monetary Costs in California 2017; State of California-2017-18-Budget). Moreover, approximately 50 percent of California's births are covered by the Medi-Cal program (California Department of Health Care Services-Medi-Cal Births 2017). The potential costs are increasing as Medi-Cal covers a growing number of births to women who smoke (Hackshaw

[4] 2014-15 Smoking rates: compared to 7.8 percent Medicare, 9.7 percent Employment based, and 8.5 privately purchased

2011; Roeseler et al 2018). Given the elevated prevalence of smoking among Medi-Cal covered populations there is a need to partner with the Department of Health Care Services (DHCS), the government department that oversees the Medi-Cal program, and with the insurance plans who provide coverage to Medi-Cal beneficiaries, ensuring access to smoking cessation treatment benefits and accountability for meeting smoking cessation quality improvement goals.

Quit *attempt* rates among smokers with Medi-Cal coverage are comparable to those with private insurance yet quit success and smoking rates among this group remain stagnant (Zhu 2002). Evidence suggests that cessation benefit coverage including promoting such benefits to members and eliminating barriers to treatment, could result in cost-savings and encourage quit attempts (Curry 1998). Finally, it should be noted that Medi-Cal recipients are more likely to seek care from safety net health systems: "more than two-thirds of all Medi-Cal managed care enrollees are enrolled in public safety-net plans; the others are served by a mix of commercial and private non-profit health plans" (Tater 2016), which means that public safety net health care systems are also important partners in addressing smoking behaviors in this population.

C. California Tobacco Control Program (CTCP) and CA Quits

California has become an icon of success in the fight to eliminate population-level smoking and its health impacts. This success is widely attributed to the CTCP. Therefore, a CTCP supported health care system redesign initiative to integrate smoking cessation treatment is expected to be innovative yet results oriented.

The CTCP is the longest standing, publicly funded tobacco control program in the US. The program was established in 1989, with the passage of Proposition 99: The Tobacco Tax and Health Protection Act, which introduced an unprecedented tax of $0.25 per pack of cigarettes tax to fund an array of tobacco education programs (Glantz 2000). A cornerstone CTCP success is

the decline in the state's adult smoking rate from 23.7 percent in 1988 to 11 percent in 2016, a reduction of approximately 53 percent (Centers for Disease Control and Prevention-BRFSS 2015). This decline results from broad spectrum policy and public health strategies including smoke-free ordinances and statewide media campaigns making "tobacco less desirable, less acceptable, and less accessible" (California Department of Public Health, California Tobacco Control Program-Facts and Figures 2016).

In 2009, when facing a state fiscal crisis, dwindling funding and stalled smoking rates, the CTCP convened a summit of domestic and global thought leaders who produced a seminal paper: "A Tobacco Quit Plan for California – Creating Positive Turbulence" ("Report"). Notably, the Report identified the need to focus on "promoting services that help smokers quit: marketing a statewide tobacco quitline and encouraging health care providers and other professionals to refer tobacco users to it."[5]

The summit and Report provided a catalyst for what would become a health care system "redesign movement" (Redesign). This movement would eventually dovetail with health care system transformations occurring nationally and at the state level. First among these is the Affordable Care Act which promulgated: 1) the expansion of Medicaid coverage and managed care, 2) preventive smoking cessation benefits; and 3) quality improvement strategies. At the state level, policy initiatives approved by the Center for Medicare and Medicaid Services (CMS), such as the "Bridge to Health Care Reform" (2010–2015) and the "Medi-Cal 2020 (2015-2020)" require capturing and measuring outpatient tobacco assessment and counseling.[6] Approximately

[5] Studies demonstrate efficacy in provider influence on patient behavior; consequently, provider engagement is a starting point for integration (Agency for Healthcare Research and Quality 2012) The Report called for advocates to rethink how to use existing assets innovatively to engage smoking populations and further indicated that any innovations needed to be "evidence-based and theoretically coherent."

[6] The state received a 1115 Waiver, approved by the Centers for Medicare and Medicaid Services (CMS) including a requirement that publicly funded systems capture and measure outpatient tobacco assessment and counseling.

five years of national and state policy changes would occur before the CTCP was positioned to execute the ideas generated from the 2009 summit and Report.

By 2016, significant national and state tobacco control policy goals were achieved, improving the capacity of the CTCP: Medicaid expanded resulting in an increase in the number covered by the state Medi-Cal program, to nearly 13 million (33 percent of residents) (California Department of Health Care Services-Medi-Cal Certified 2018); a tobacco tax created a new revenue stream for the CTCP (Ballotpedia 2016); and a package of tobacco control bills were enacted—most notably, the legal age to purchase tobacco and electronic cigarette products was increased to 21 years.[7] The CTCP embraced a new paradigm: zero percent smoking by 2035.

1. Pilot Project

In 2016, the CTCP funded a new pilot project: Building CA Quits, which would, first, examine tobacco cessation supports in California's safety net health care delivery systems, and then explore the potential for making improvements where shortcomings or gaps existed. The safety net health care systems targeted are the 21 publicly funded hospital campuses located in 15 counties throughout the state. A primary goal of the "Building CA Quits" project was to establish and steward a tobacco cessation learning collaborative of providers recruited from among these systems. Certain hospitals within the 21 safety net systems were also participating in the Medi-Cal 2020 1115 Waiver program: PRIME program (California Department of Health Care Services-PRIME Medi-Cal 2020 2018; Pagel 2017). PRIME is a pay-for-performance initiative that reimburses participating systems for achieving prescribed quality metrics included

[7] Vaping product sales and use rules became more restrictive. For example, e-cigarette smoking is now banned from schools, restaurants, workplaces, and hospitals (Noon 2016, Campaign for Tobacco Free Kids-Tobacco 21 2018) and in accordance with the Institute of Medicine report on *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products legal age of purchase was also raised to 21 years*, (Institute of Medicine 2015). Military personnel were exempted from the age restrictions – legal age of tobacco/electronic nicotine delivery devices purchases remain at 18 years (Aliferis 2016).

in several health care services initiatives, each mandatory (Harbage 2017). A tobacco use/smoking quality improvement metric was included in many of the required initiatives and is defined by the PRIME program as: "Tobacco assessment and counseling measures [that capture] the percentage of patients who were screened for tobacco use, and who received tobacco cessation counseling intervention" (California Association of Public Hospitals and Health Systems 2017). The California Association for Public Hospitals (CAPH), administrator of the PRIME program, describes the quality improvement metrics as follows:

"The metrics are standard across all PRIME participants, such that all participants in a given project are accountable for the same metrics and follow the same procedures to identify numerators and denominators and report performance. Systems are required to improve on their performance from the prior year, meeting minimum performance thresholds (25th percentile of the established benchmark) in order to receive funding" (California Association of Public Hospitals and Health Systems 2017).

The Building CA Quits pilot project had two Redesign objectives:

1) By March 31, 2018 (In 1 year): 15 hospital campuses will report that they have implemented evidence-based tobacco cessation treatment, and that they routinely promote and refer patients to the California Smokers' Helpline (Helpline).
2) By March 31, 2018 (In 1 year): analyze the economic impact of Assembly Bill 1696 or a similar policy that would impact California health plans (by providing benefits coverage for tobacco cessation treatment recommended by the United States Preventive Services Task Force).

The pilot program sought to assist the hospital systems participating in PRIME to achieve their tobacco related quality improvement metrics and enhance mechanisms for sustaining this

achievement. This approach relied on building relationships with providers, assessing technical and technological capabilities and needs, and determining provider knowledge of available state and local smoking cessation supports. What emerged during the pilot was that providers value technical assistance to improve their tobacco quality improvement metrics, gaining information on treatment, and the opportunity to learn from other hospital systems. However, the Building CA Quits team also learned that providers were not fully aware of the CTCP resources, including the Helpline. The PRIME tobacco quality improvement metric results reported during the pilot project are noted in Table 3.

Table 3. Tobacco metric reported by safety net systems participating in Building CA Quits

Safety Net System: Name	Baseline: Tobacco QI Metric (Assessment rate)	Project End: Tobacco QI Metric (Assessment rate)	Change (+/-): % points
Alameda Health System	39%	61%	+22
Arrowhead Regional	72%	74%	+2
Contra Costa Regional	98%	84%	-14
Kern Medical Ctr	37%	74%	+37
Los Angeles DHS	71%	89%	+18
Natividad Medical Ctr	89%	97%	+8
Riverside University Health	41%	66%	+25
San Francisco General Hospital	88%	94%	+6
San Joaquin General Hospital	77%	86%	+9
San Mateo Medical Ctr	97%	98%	+1
Santa Clara Valley Medical Ctr	76%	80%	+4
UC Davis	88%	88%	0
UC Irvine	95%	94%	-1
UCLA	95%	96%	+1
UC San Diego	95%	95%	0
UC San Francisco	88%	94%	+6
Ventura County Medical Ctr	57%	87%	+30

The tobacco QI metric changes reported during the pilot project, shown in Table 3, reveal that the results were uneven, with some systems achieving significant improvements in their tobacco QI metric, while others achieved minimal improvement, or even lost ground.

2. CA Quits

In 2017, the CTCP invited the Building CA Quits pilot project team to submit a proposal for a 5-year, scaled-up CA Quits initiative (see Appendix 1). As with the pilot, the team developed a project concept anchored in convening and stewarding multisector collaborations with safety net hospital systems but expanded the reach to include more types of safety net health care delivery systems (Indian Health Services, Federally Qualified Health Centers, etc.) and two additional health care sectors that target low income populations: local public health department tobacco programs and Medicaid managed care plans, to achieve its goals and objectives. The target systems in the scaled project include California's:

- 21 publicly funded safety net hospital systems (comprising 17 Designated Public Hospitals and 37 District/Municipal Public Hospitals);
- 27 Medi-Cal insurance plans; and
- 61Public health departments (58 county and 3 municipal).

CA Quits also proposes convening a learning collaborative of representatives from California's ambulatory and outpatient safety net health care systems, serving special populations including:

- Federally Qualified Health Centers/Community Health Centers
- Indian Health Services/Tribally Operated Clinics
- Veterans Affairs
- Family planning clinics

The project scope of work includes adjusting clinical system work flows, establishing treatment protocols, and cataloging patient treatment options, as well as defining guidelines for documenting in the Electronic Medical Records (EMR) and referring patients to support services. The work includes electronic referrals to the Helpline while complying with Health Insurance Portability and Accountability Act (HIPAA) requirements. These efforts are conceived to ensure a continuum of smoking cessation supports that are evidenced based and accessible (North American Quitline Consortium-Barriers and Challenges of Scaling up eReferral 2017). The Redesign content covers a spectrum of integration topics, including leadership buy-in, policies and procedures, EMR adaptations to embed works orders, data capture, IT interfacing to e-refer patients to the Helpline, and education material development.

Of critical importance to Redesign is that providers are confident that they can connect patients to the Helpline. Equally important are data capture and feedback among these systems. The partnering between providers and the Helpline assumes a two-step process to support evidence-based tobacco cessation treatment. In addition, the success of Redesign as envisioned by CA Quits relies on creating a continuum of care through leveraging resources of other targeted partner sectors: Medicaid insurance plans and public health departments. A synopsis of the contributions of each including the expected inputs, activities, outputs and outcomes are captured below in Figure 6.

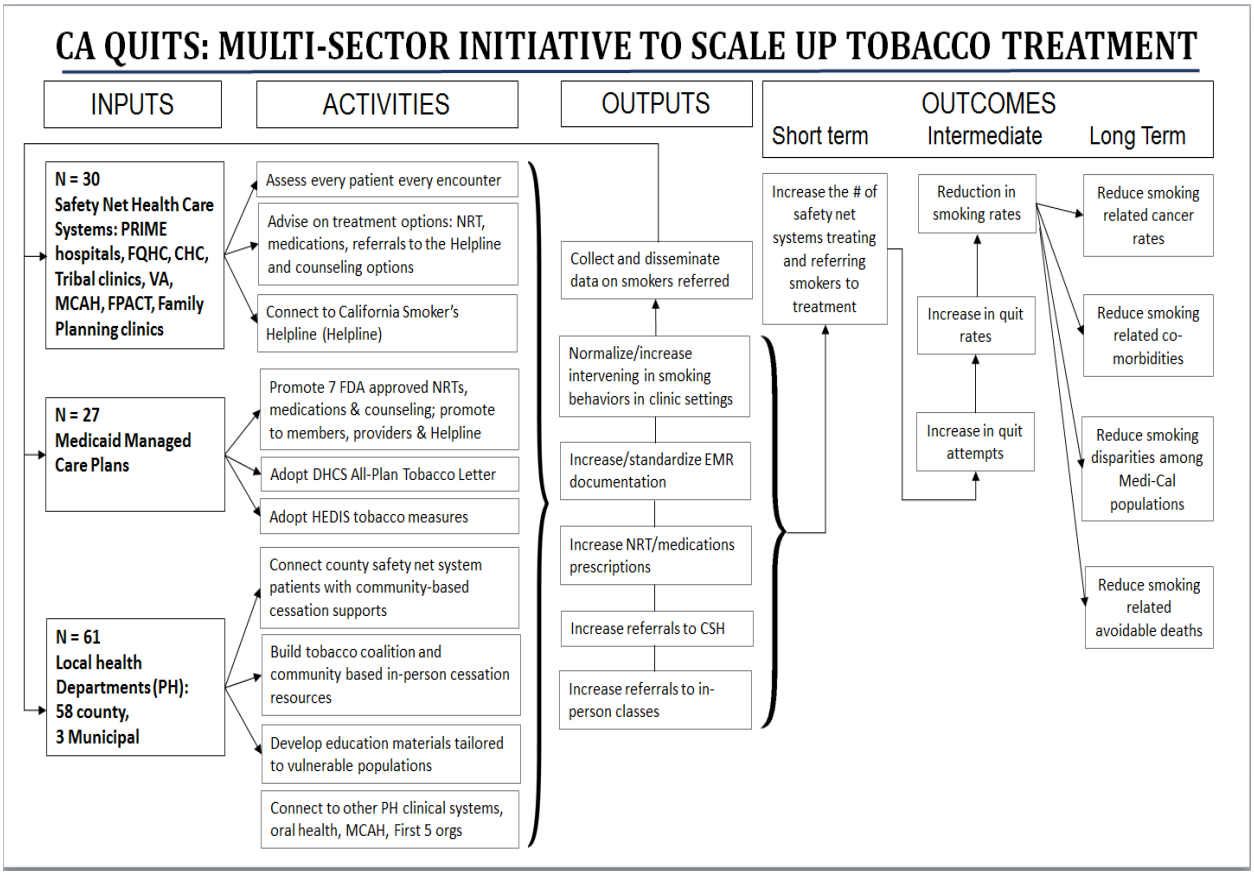


Figure 6. Logic Model, Multi-Sector Tobacco Use Cessation Initiative

If CA Quits is successful, multiple opportunities will emerge to encourage quit attempts via networked sector resources. These opportunities will start with providers and an evidence-based treatment approach but will extend to connecting patients to localized and tailored community supports.

3. Stakeholder Sectors

Supports from each stakeholder system must be woven together to create a continuum of smoking cessation care which requires integration that is technical, relational, interdependent, and that has leadership buy-in. Given the harried, under-resourced, and segmented safety net health care system environment, it is important to understand whether the CA Quits activities are feasible and in alignment with provider and system incentives. Among the most important

questions are: What are the barriers to addressing smoking for the Medi-Cal plans and the public health departments? What are each sector's smoking cessation support requirements, strategic initiatives, metrics, regulations, costs, politics, and leadership mandates? Are sector capabilities and interests in pursuing smoking synergistic with the CA Quits project's plan?

4. Policy changes supporting health care system Redesign

After the passage of the ACA, California received CMS approval for its 1115 Waiver health care initiatives that would begin to transform the state's publicly funded safety net system, including the Low Income Health Program (LIHP), and the Delivery System Reform Incentive Program (DSRIP). These programs enabled California to begin Medicaid expansion prior to the national ACA rollout and reshape the safety net health care landscape (CA HealthCare Foundation 2; California Health Care Safety Net Institute-Aggregate Report 2013).[8] They also set the stage for the current Redesign initiative, "Medi-Cal 2020," which includes the PRIME program and aims to transform safety net system financing to pay for performance models (California Department of Health Care Services-PRIME Medi-Cal 2020 2018). Embedded in the ACA plan were structural changes relevant to furthering integration of tobacco cessation treatments in clinical settings. These include the transition of patient record keeping to electronic medical records, the so-called "Meaningful Use" measures (Blumenthal 2010) and a refocusing on preventive health services. Of vital importance to tobacco cessation efforts is the ACA mandate for insurance to cover preventive services including smoking cessation treatments

[8] In 2013, California began to cover its low-income (<138 percent of the federal poverty level), childless adults and transition the state's Medi-Cal reimbursement models from fee-for-service to managed care contracts (Mann 2016). Medicaid expansion added 4 million low-income adults to the state's Medi-Cal program (Bazar 2017). Medi-Cal's fee-for-service insurance plans were transitioned to managed care with few exceptions. Several of the public hospital systems implemented performance improvement programs (California Health Care Safety Net Institute-Aggregate Report 2013).

(Tobacco Control Legal Consortium 2014).[9] However, variation exists in such coverage depending on differences in state Medicaid programs, definitions/classifications of services covered, type of insurance and health, and specific health conditions, such as pregnancy (see Appendix 2).

In 2016, California's voters passed Proposition 56, increasing the taxes on tobacco and other nicotine delivery products such as e-cigarettes. As a result, the taxes on cigarettes increased by $2.00 per pack bringing the total tax to $2.87 per pack (Ballotpedia 2016).[10] Revenue generated from Proposition 56 taxes is slated for a spectrum of health related initiatives, including Medi-Cal reimbursements, provider training, medical treatments and research on tobacco and smoking related diseases. The tax allocations are partially devised to combat the high prevalence of smoking among the Medi-Cal population (California Department of Public Health, California Tobacco Control Program-Legislative Mandate 2018).).[11]

5. Public Health Departments change supporting system Redesign

a. The California Department of Public Health: CTCP

The California Department of Public Health (CDPH) and its specialized branch, the CTCP, works to mitigate smoking among California's 39 million residents (All-Gov 2016; California Department of Public Health-CCLHO 2018).[12] The CTCP funds 61 local health departments, competitively selected community-based organizations and statewide technical

[9] Newly covered Medi-Cal beneficiaries are provided access to preventive services that receive an A or B from the USPSTF. This includes cessation benefits—in some cases without cost sharing. For adults, clinicians should ask about tobacco use and advise on quitting. The recommendations include providing behavioral counseling and FDA-approved pharmacotherapy. Under the ACA, no-cost smoking cessation coverage is mandatory for pregnant women (U.S. Preventive Services Task Force 2015).

[10] Prior to 2016, California tobacco taxes were lower than those in 34 states at $0.87 per pack versus the national average of $1.65.

[11] Tobacco tax revenues—to support the provision of insurance coverage, smoking cessation benefits, and access to quality care through public systems aligns with ACA systems changes and is envisioned to address smoking disparities (Zhu 2017, California Department of Public Health, Tobacco Control Program-Facts & Figures 2017).

[12] The CDPH mission is to optimize the health and well-being of the people in California; its infrastructure is composed of five centers: Health Care Quality, Chronic Disease Prevention & Health Promotion, Family Health, Infectious Disease and Environmental Health. In addition,

assistance providers. New revenues from the Proposition 56 taxes have substantially increased the CTCP budgets and, as a result, its capacity to expand efforts in harnessing health care system involvement in tobacco control. For fiscal year, 2017-2018, the CTCP budget is approximately $222 million, which represents a 21 percent increase over the 2015-2016 period. The CTCP, however, is also facing new and challenging performance measures and long term goals including "monitoring the decline in tobacco-related disparities with the goal of eliminating them" (California Department of Public Health, California Tobacco Control Program-Legislative Mandate 2018). To meet these challenges CTCP is adding new partners to its technical assistance cadre from the health care delivery sector. These additional supports will target the Medi-Cal population and other sub-population groups that experience elevated smoking disparities, such as those struggling with mental and behavioral health issues. Figure 7 illustrates the CTCP infrastructure including new partners (2016–2023).

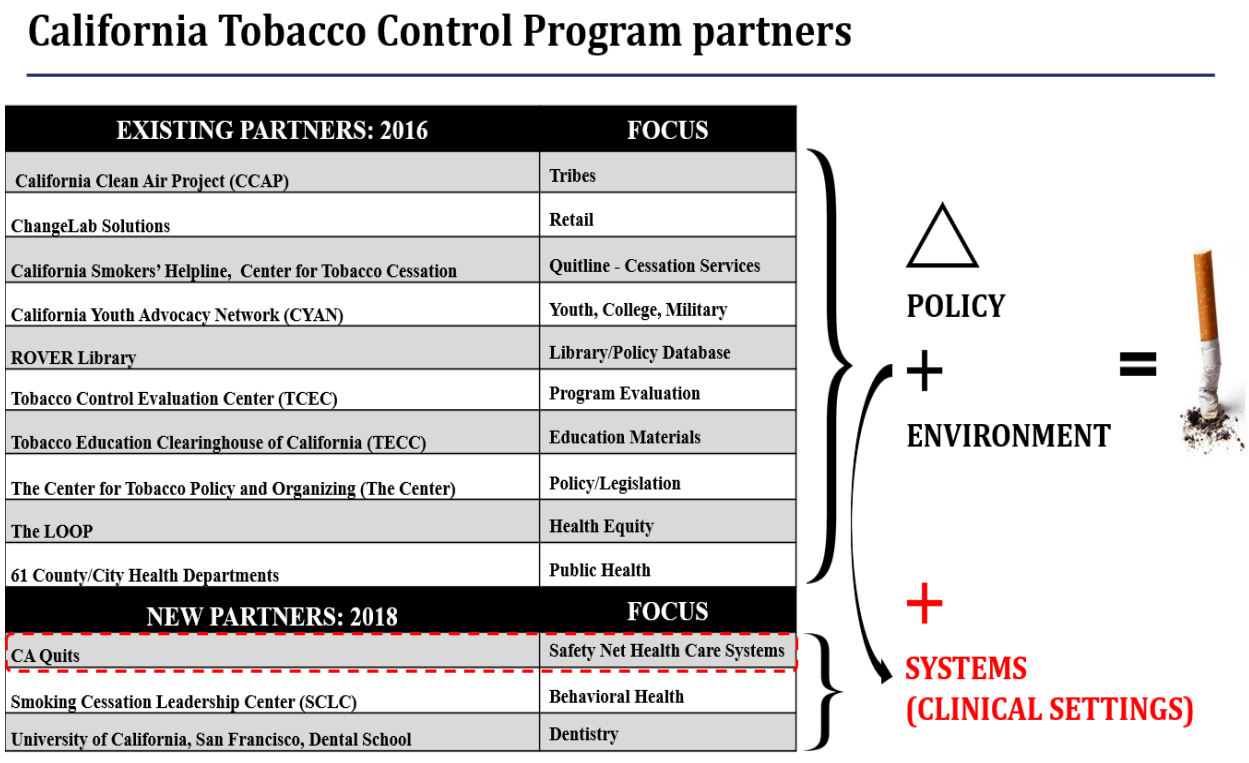


Figure 7. California Tobacco Control Program (CTCP) Partners

b. Local Public Health Departments

The CTCP funds 58 county and three municipal local health department tobacco control programs, referred to collectively as Local Lead Agencies ("LLA") (California Department of Public Health-CCLHO 2018). Each one of the LLA develops its tobacco control plan using the Communities of Excellence framework (California Department of Public Health, California Tobacco Control Program-Communities of Excellence 2016). LLA have historically focused much of their tobacco control efforts on "implementing programs and policies to influence societal organizations, systems, and networks that […] encourage behavior choices consistent with tobacco-free norms" (Centers for Disease Control and Prevention-Best Practices 2014). However, in the current grant funding cycle (2017/18 – 2021), 21 of the LLA have also selected "cessation" objectives in their scopes of work (California Department of Public Health, California Tobacco Control Program-Communities of Excellence 2016). The 21 LLA will be natural partners in the health systems Redesign effort.

6. Medi-Cal plan changes supporting system Redesign

California's Medi-Cal program is the largest and arguably the most complex state Medicaid program in the nation (California Department of Health Care Services-Strategic 2018). There are 27 Medi-Cal plans operating in the state's 58 counties. California's managed care program is unique, in that coverage is contracted between counties and a variety of types of health care organizations who administer/operate Medi-Cal plans, including counties themselves, commercial entities, and non-profit organizations. The DHCS promulgates plan use of smoking cessation quality improvement tools, including "All Plan Letters," (California Department of Health Care Services-All Plan Letter 2016), patient surveys and documentation in the EMR (California Department of Health Care Services-Medi-Cal Managed Care 2018). Each enables

tracking and treating of smokers, however, adherence is variable, and processes/outcomes lack transparency.[13]

7. Clinical changes supporting system Redesign

a. California's Health Care Safety Net

California provides health services to its low-income populations through a spectrum of publicly funded systems including hospital systems, Federally Qualified Health Centers, Community Health Centers, Tribally operated ambulatory clinic systems, Veterans Affairs systems, family planning clinics, and migrant clinics, to name a few. Opportunity exists to integrate smoking cessation approaches and address smoking disparities in each system type. However, quality improvement approaches and standards vary by system, requiring tailored approaches for addressing smoking and tobacco use as a Redesign topic.

b. Publicly Funded Hospital Systems

According to the CAPH, there are 21 county-affiliated systems and five University of California academic medical centers (Davis, San Francisco, Los Angeles, Irvine, and San Diego) that together form the core of California's health care safety net.[14] Each system participates in the PRIME program and is a target for the CA Quits program.

c. Federally Qualified Health Center ("FQHC")

[13] DHCS uses all "All Plan Letters"; some plans also use Healthcare Effectiveness Data and Information Set Reports (HEDIS®). The DHCS promotes use of the "Staying Healthy Assessment" (SHA) and the CAHPS member satisfaction survey. Moreover, DHCS also promotes adoption of coordinated, system-wide, change strategies outlined in the Public Health Service-sponsored Clinical Practice Guideline, Treating Tobacco Use and Dependence: 2008, recommended by the Agency for Healthcare Research and Quality (California Department of Health Care Services-Strategy for Quality Improvement 2012)

[14] Safety net systems: 1) comprise six percent of hospitals in the state, 2) provide 34 percent of all hospital care to the uninsured and 3) provide 35 percent of all hospital care to Medi-Cal beneficiaries; 4) serves 2.85 million patients via 10.5 million outpatient visits annually, and 5) operates more than 200 outpatient clinic facilities, 6) are in 15 counties where 80 percent of California's population resides. (California Association of Public Hospitals and Health Systems 2018).

The backbone of California's ambulatory safety net system are FQHCs and "look alike" facilities (see Appendix 3). In some cases, the FQHCs work together with the state's 21 safety net hospital systems. In others they are stand-alone entities that provision primary and ambulatory care services to the medically underserved, migratory and seasonal agricultural workers, the homeless, and residents of public housing (Capital Link 2017).[15] As with California's 21 publicly funded safety net hospital systems, FQHCs have a smoking quality improvement metric as part of their grant funding and required quality improvement measures (Health Resources and Services Administration-Uniform Data System 2016).

8. Summary

A review of California's policy, system and environment reveals factors that support Redesign and conditions favorable for implementing the CA Quits project. What remains less clear is to what extent the topic of smoking cessation can garner priority status with the stakeholder sectors. For example, the literature demonstrates that managed care plans have structural drivers to address smoking, such as ACA recommended preventive services and the California Department of Health Care Services, All-Plan letters. However, the extent to which this guidance and recommendations sufficiently incentivize engagement in a smoking related Redesign initiative is unknown. With the recent passage of laws making smoking costlier and further restricting behaviors and access, there appears to be a timely window of opportunity to reach smokers primed to quit. Since health care providers have a powerful role in patient's health related behavior (California Department of Public Health, California Tobacco Control Branch-Cessation Services 2018; Levin 2017), Redesign centers on them and their settings: their capacity to

[15] As of 2016, California's FQHC system was comprised of 176 facilities with 1,454 clinical sites, plus 22 look alike facilities with 98 clinics. The FQHC served 4,095,628 million patients and delivered a total of 18,077,145 patient visits (Phillips 2017).

address smoking, their workflows, and use of EMR systems to document and refer smokers to cessation supports (Centers for Disease Control and Prevention-Cessation Materials 2014).

III. METHODS

A. Study Design

The study design used for this DELTA is a formative evaluation. Formative evaluation is a mechanism that aligns implementation research goals with project goals to optimize success by assessing contextual factors and input from prospective project participants and determining any needed changes (Stetler 2006). Formative evaluation is identified as an appropriate evaluation approach for CI initiatives (Parkhurst 2014), providing an opportunity to use the results of "evaluative activities to make smart decisions about adapting and improving the initiative; […] such decisions, must complement performance measurement activities (which focus on determining *what* is happening) with other types of evaluation aimed at understanding *how* and *why* change is happening". Table 4 compares key features of formative evaluation with two other common evaluation approaches.

Table 4. Three Approaches to Collective Impact Evaluation (Parkhurst 2014)

	DEVELOPMENTAL EVALUATION	**FORMATIVE EVALUATION**	**SUMMATIVE EVALUATION**
Stage of collective impact development	Collective impact initiative is exploring and in development	Collective impact initiative is evolving and being refined	Collective impact initiative is stable and well-established
What's happening?	• Collective impact partners are assembling the core elements of their initiative, developing action plans, and exploring different strategies and activities. • There is a degree of uncertainty about what will work and how.	• The initiative's core elements are in place and partners are implementing agreed upon strategies and activities. • Outcomes are becoming more predictable • The initiative's	• The initiative's activities are well established. • Implementers have significant experience and increasing certainty about "what works." • The initiative is ready for a determination of

	• New questions, challenges, and opportunities are emerging.	context is increasingly well known and understood.	impact, merit, value, or significance.
Strategic question	What needs to happen?	How well is it working?	What difference did it make?
Sample evaluation questions	• How are relationships developing among collective impact partners? • What seems to be working well and where is there early progress? • How should the collective impact initiative adapt in response to changing circumstances?	• How can the initiative enhance what is working well and improve what is not? • What effect or changes are starting to show up in targeted systems? • What factors are limiting progress and how can they be managed or addressed?	• What differences did the collective impact initiative make? • What about the collective impact process has been most effective, for whom and why?

A formative evaluation is necessary for the CA Quits project because the underlying project concepts are relatively new, and lack study and validation. It is anticipated to provide a mechanism for testing proposed activities and project assumptions compared to those identified or derived from the study data. The DELTA project findings are anticipated to reveal: 1) How CA Quits can enhance what is currently working in safety net clinical efforts to address smoking/tobacco use cessation, 2) what changes in tobacco/smoking cessation efforts may or may not be occurring in each target sector, and 3) what factors are limiting progress and how they can be managed or addressed. Each of these components is expected to help reveal and clarify the target sectors' incentives/disincentives for prioritizing smoking and thus participating in the CA Quits project.

For this DELTA, an in-depth literature review was completed, and primary data was collected through conducting key informant interviews. A qualitative methodological approach is

used in this formative evaluation to obtain the study dataset**.** Qualitative data can produce information that is rich, nuanced and context specific since it derives directly from personal experience and perspective, something, not easily captured in publicly available information or quantitative data (Stetler 2006). Most importantly, qualitative data can help provide insight into the targeted stakeholders' incentives and disincentives to participate in the CA Quits project. It can also reveal where and how project concepts align with stakeholder norms; enable assessment and mitigation of potential "negative unintended" consequences as well as engender commitment with targeted stakeholders (Louch 2017). The two research questions examined in this study are: 1) Are stakeholder incentives sufficiently aligned to motivate participation in the CA Quits project? and 2) Is Collective Impact theory applicable to the CA Quits concept and targeted stakeholders?

B. Sampling Method

A total of 21 key informant interviews (n=21) were conducted: 6 each from the project's three targeted sectors (public health departments, Medi-Cal plans, and health care safety net systems) and 3 from leadership (one each from the three sectors). The interviewees were all chosen from within a sample set of six counties. The unit of assessment selected was the county because each sector operates in all 58 counties in California and because health care activity is typically organized at the county level. I wanted two sample subsets (3 counties in each set): one of counties that received usual, non-competitive, CTCP funding for local health departments to engage in tobacco control activity, and one set that received usual funding plus additional competitive grant awards.[16] My primary interest in examining the subsets based on additional

[16] Until 2018 competitive funding was limited to 20 projects that demonstrated high need (i.e. smoking disparities by income, race, rural residence or other factors). Awards were distributed for 3-year periods and required demonstration of capacity, infrastructure, community engagement (California Department of Public Health, California Tobacco Control Program-Facts and Figures 2016).

county level grant awards was to see if the added funding made any difference in perceived tobacco control activity at the county level and motivated participation by the three target sectors of interest.

Selection of sample counties: Background data for each county in California was obtained from the California Health Interview Survey (CHIS), the Behavioral Risk Factor Surveillance System (BRFSS), the Census Bureau, and several other public repositories and non-profit entities (see Figure 8). The data was aggregated and organized to produce a county level profile that centered on smoking rates. The county sample background database contained three domains:

1) Demographic characteristics: poverty levels, racial composition, and smoking prevalence among low SES groups;
2) Sector level resources: number and types of safety net health care facilities, tobacco control programs, and funding; and
3) Number and type of smoke free policies and ordinances passed and implemented.

COUNTY	POP[1]	% POP IN POVERTY[2]	ADULT SMOKING PREVALENCE (2014)[3]	ADULT SMOKING PREVALENCE: MEDICAID POPULATION (2014)[4]	INDEX OF DISPARITY (ID)[5]			CTCP FUNDING (2014-2017)[6]	CESSATION OBJECTIVE[7]	URBAN / RURAL[8]	NORTH, CENTRAL, SOUTH[9]	SAFETY NET HOSPITALS (PRIME: 2015 - 2020)[10]	FQHC[11]	MEDICAID MANAGED CARE PLAN[12]	LOCAL POLICIES[13]
NAME	#	%	%	%	LOW	HIGH	ID	(Y/N)	(Y/N)	(U/R)	(N, C, S)	(TYPE/#)	#	NAME	(+)= > STATE LAW
Butte (BU)	220,000	19.5	15.9%	22.9%	26.7%	46.0%	.368	Y: ALA Y: CA HEALTH COLLAB	N, N	R	N		1	Anthem Blue Cross CA Health & Wellness	(+) Some OD REC areas
Shasta (SH)	177,223	17.2	20.2%	32.9%	27.0%	62.4%	.260			R	N	DMPH/1	3	Partnership Health Plan of CA	(+) Some OD REC areas
San Joaquin (SJ)	685,306	14.6	15.5%	19.1%	15.9%	59.2%	.766			U	C	DMPH/1	2	Health Net Health Plan of San Joaquin	(+) SOME OD REC AREAS
Tulare (TU)	442,179	24.7	20.9%	36.7%	14.1%	100.0%	2.68	Y: CA HEALTH COLLAB	N	R	C	DMPH/2	2	Anthem Blue Cross Health Net	(+) Some OD REC areas
Los Angeles (LO)	9,818,605	16.3	12.2%	14.7%	12.0%	35.7%	.684	Y: ALA Y: BACR Y: FAME Y: PEOPLE'S CORE Y: SF STUDY CNTR Y: WATTS HC	N, N, N, N, N, N	U	S	DPH/4	56	Health Net L.A Care Health AltaMed (PACE) Brandman Centers Positive Healthcare SCAN Health	(+) Some OD REC areas
Riverside (RI)	2,189,641	15.3	13.0%	15.6%	8.6%	34.1%	.523			U	S	DPH/1	4	Inland Empire Health Molina Healthcare Innovage PACE SCAN Health	(+) Some OD REC areas

Figure 8. Six County Sample Background Datapoints Collected[17]

Index of Disparity: An additional indicator, the Index of Disparity (ID), was calculated and added to the frame. The ID is used to illustrate the level of disparity averaged across groups. As described by Pearcy (2002) The Index of Disparity is a summary measure of health disparity. Eliminating health disparities is a goal of Healthy People 2010 [and Healthy People 2020]. To track progress toward this goal, improved methods for measuring disparities are needed. The authors present the Index of Disparity (ID) as a summary measure of disparity:

The ID, a modified coefficient of variation, was used to measure disparity across populations defined on the basis of race/ethnicity, income, education, and gender. Disparity was also assessed for a diverse range of health indicators and over time to monitor trends. The analysis showed that disparities in cardiovascular disease deaths decreased based on gender from 1989 to 1998 but was largely unchanged based on race/ethnicity. The magnitude of disparities in cervical cancer and cholesterol screening, smoking, exercise, and health insurance ranged from 1.9% to 78.6%. The largest disparities for health indicators were not associated with any particular population classification, whether defined on the basis of race/ethnicity, education, or income.

To eliminate disparities, we need a means to assess disparities across many types of health indicators. Furthermore, for a given health indicator, disparities may differ for populations defined on the basis of race/ethnicity, education, income, and so on. The ID appears to be a simple method for summarizing disparities across groups within a population that can be applied

[17] Data collected from CHIS had stability issues for smoking prevalence by race. To remedy this, data was pooled from: 2010–2014. This improved but did not fully remedy the problem; in certain counties wide confidence intervals remain. BRFSS and CTCP smoking rate data was reviewed to support use of CHIS data and ensure accuracy in the county profiles.

across health indicators regardless of magnitude, over time to monitor trends, and across different populations.

For this DELTA, the ID was calculated in two ways for smoking prevalence by racial group: 1) Using county level prevalence as the reference group, and 2) Using the group with the "best" or lowest prevalence as the reference group (see Appendix 4). The ID was included to aid in unmasking the disparate smoking rates that occur among low SES groups, by race, but are obscured when using the county prevalence alone as the benchmark statistic on smoking rates.

Each target sector operates through systems of statewide networked organizations, in the sense that they are connected by funding, regulation, and oversight by state and local governmental agencies. Information on the presence of each sector within counties was collected from oversight agencies including DHCS, CTCP, CAPH, and HRSA. Presence includes the number and type of facilities, services delivered, number of Medi-Cal plans per county, and any smoking-related programming. Information on local smoke-free polices and smoking-cessation programming from non-profit organizations, such as the American Lung Association was collected and included in the frame.

C. Sampling Frame

The sampling frame consists of 13 data points for each country (see Figure 9), four of which are rates-based and were used to calculate a county "score". Each rates-based data point was given equal weight. The scored counties were then separated into three groups representing major regions in the state of California: North, Central and South. Two counties from each of these regions were matched based on the smallest difference between the county scores as well as other data points. A total of six counties were allocated to either of the two study design arms: intervention or comparison. The two arms are characterized as: 1) a "tobacco cessation primed"

intervention arm, and 2) a "tobacco cessation neutral" comparison arm. This categorization is based on having the additional CTCP competitive funding. The objective of this allocation was to compare data between counties that had usual funding versus those that obtained additional funding while controlling for other characteristics, including: geographic location, demographic profile, smoking rates and presence of target sector activity. The working hypothesis was that counties with additional funding would demonstrate more tobacco cessation activity and readiness to participate in the CA Quits project than those without the additional funding. An illustration of the sampling method is provided in Figure 9, below.

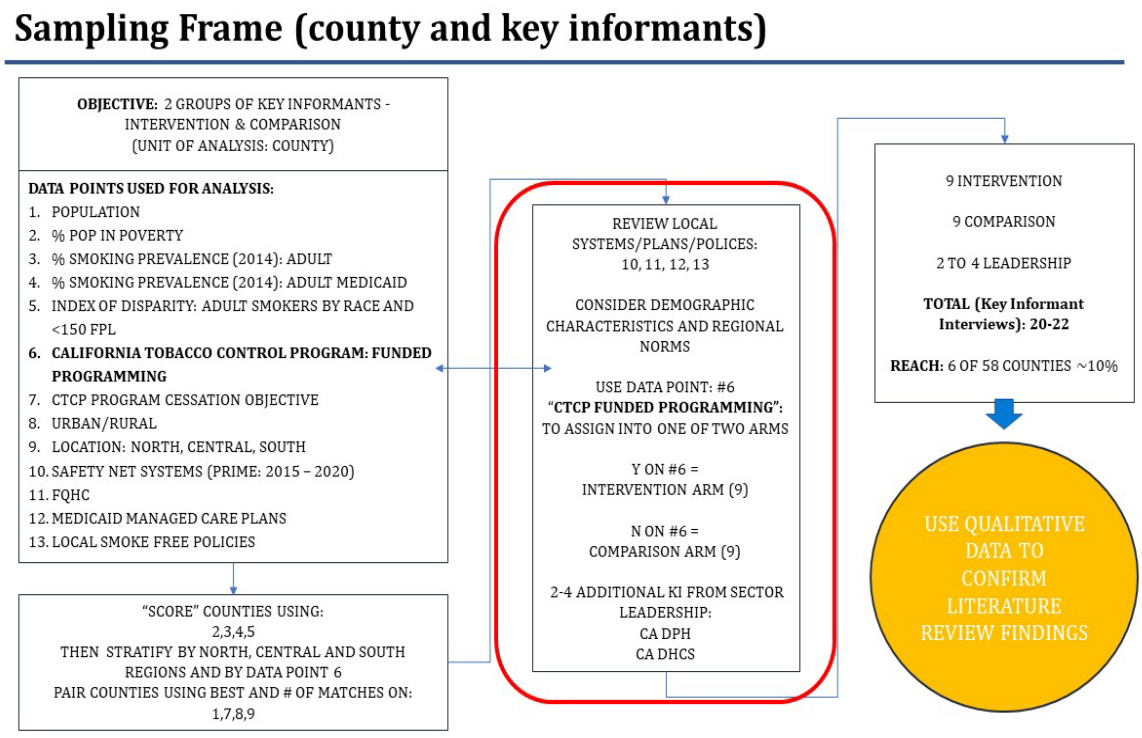


Figure 9. CA Quits County Sampling Method

As noted, six California counties were identified for the CA Quits sample, two per each of the three regions in the state. Each pair demonstrates key similarities to each other, but differences compared with pairs in the other California regions. These similarities or differences are by urban and rural environments, racial composition and socio-cultural characteristics,

political orientation, and economic activity. Selected comparative information for each county is presented in Table 5, grouped by the three California regions, to show a basic profile of the locations. A brief description of the three regions follows to provide more detail about the geography, industry and economic activity of each county and region.

Table 5. Six County Sample Demographic Profile (Data USA, 2016)

	Region	Pop #	Area (sq. mi)	Pop Density (sq. mi)	Poverty Rate (%)	Majority Race (%)	Median Income
	Northern California						
1	Butte County	223,877	1677	130	21.3	75 (White)	$44,366
2	Shasta County	179,228	3846	46	17.5	81 (White)	$45,582
	Central California						
3	San Joaquin	733,709	1426	490	14.4	41 (Hispanic)	$59,518
4	Tulare	460,437	4839	91	25.2	64 (Hispanic)	$45,881
	Southern California						
5	Los Angeles	10.1 M	4752	2067	16.3	49 (Hispanic)	$61,338
6	Riverside	2.39 M	7303	300	15.3	48 (Hispanic)	$60,134

1. Northern California

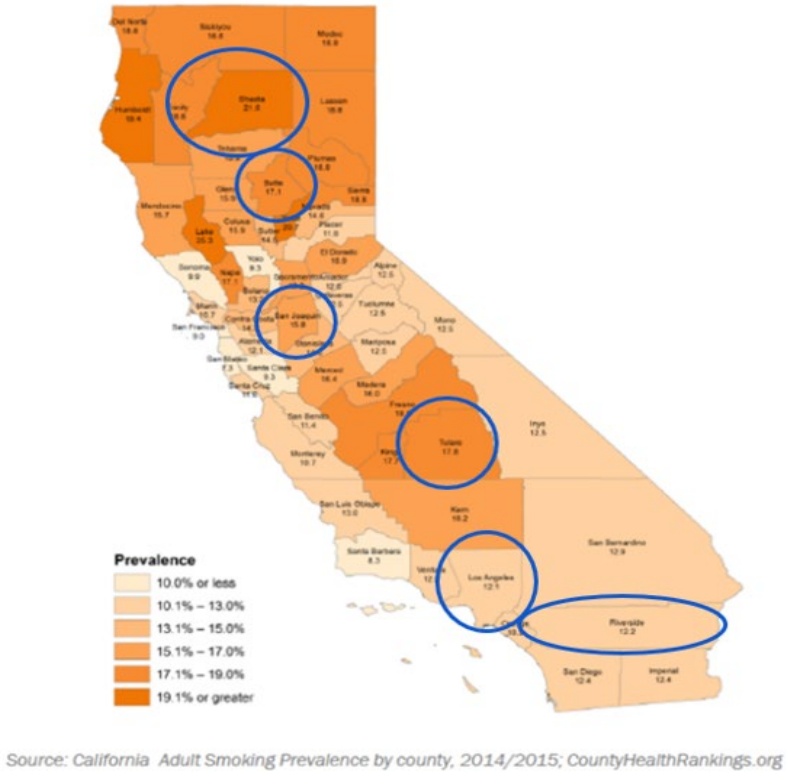
The two counties selected and matched for this region, Shasta and Butte are located in far Northern California. This part of the state is defined as rural. In these counties are four national forests, two large river systems and two mountain systems. The primary economic activities of both counties are agriculture, forestry, fishing, hunting, utilities and arts and recreation (Data USA: Butte and Shasta Counties).

2. Central California

The two counties selected and matched for this region, San Joaquin and Tulare are located in central California. This part of the state has both urban and rural areas. The primary economic activities in each county overlap a great deal but also diverge. For county 3, San

Joaquin, the primary economic activities are agriculture, forestry, fishing, hunting; transportation & warehousing; and utilities. County 4, Tulare, specializes in agriculture, forestry, fishing, hunting and public administration recreation (Data USA: San Joaquin and Tulare Counties).

3. Southern California



Source: California Adult Smoking Prevalence by county, 2014/2015; CountyHealthRankings.org

Figure 10. Six County Sample: Map

The two counties selected and matched for this region, Los Angeles and Riverside are located in adjacent areas: southern east and west California and are both defined as urban. The primary economic activities in each county overlap a great deal but also diverge. For county 5, Los Angeles, the primary economic activities are is information, arts, entertainment, recreation; and wholesale trade. County 6, Riverside, specializes in agriculture, forestry, fishing, hunting; arts, entertainment, recreation; and construction recreation (Data USA: Los Angeles and Riverside Counties).

D. Key Informant Interviews

Key informant interviews capture knowledge that is nuanced, rich, and meaningful to those who work within the targeted stakeholder sectors. Data derived from key informants are

essential for elucidating target sector idiosyncrasies and interests. For this study, the data derived from key informants was anticipated to help me to better understand the decision making processes for prioritizing a health topic and how collaborations might be considered as an approach for addressing a given health topic.

To ensure that the study was accessing key informants with relevant perspective and insight each went through a recruitment process that included assessing their role as leader, expert or professional in one of the three targeted health sectors: 1) A heath care safety net service delivery system, 2) A public health department; and/or, 3) A Medicaid managed care plan. This selection process included obtaining information about the individual's working knowledge of health priorities, quality improvement or economic interests, and partnerships/ collaborations within and beyond their sector was considered. This information was obtained either by professional references from peers, colleagues, and leaders or by review of individual's bio-sketches, Linkdin profiles or other publically available professional profile information. Selection as a key informant required meeting specific criteria that included professional experience in two topic areas:

1. Addressing smoking as a health behavior; and
2. Multisector collaborations as an approach to addressing health issues.

Using the six-county sample, I recruited key informants from each of the three targeted stakeholder sectors (public health departments, Medi-Cal plans, and safety net health systems) within each county. Two structured interview guides were developed and used for the interviews—one for the "intervention" counties and one for the "comparison" counties, in addition, an interviewee consent form, and study protocols were also developed. An Institutional Review Board application was prepared and received an exempt status from full review: IRB17-

2074 - CA Quits: Redesigning the Health Care System to Combat California's Smoking Disparities (see Appendix 5).

The interview guides contained 5 open-ended questions in two domains. The questions used for interviews with the target sectors in intervention counties are shown in Figure 11.

Background.

1. Tell me a little bit about yourself and the organization you currently work for?
    a. Brief personal/professional history [prompt]
    b. Brief introduction to the organization [prompt: size, scope, service area]
    c. Mission and vision [prompt: any other target/focus]

Smoking as a Health Priority.

2. Can you tell me about your decision making process for prioritizing smoking as a target for intervention?

3. What are the barriers/drivers for systems to address smoking?
    a. Time/training
    b. Quality Improvement metrics
    c. Reimbursement, insurance coverage, no/low resources
    d. Other

Collaborations and Partnerships.

4. Does your organization partner with external entities/sectors?

5. Can you describe your experiences with collaborations?
    a. pros/cons
    b. what is required to sustain involvement [prompt]

Conclusion.

6. Do you have any questions for me or recommendations for the CA Quits project?

Figure 11. Key Informant Interview Questions: Intervention Counties

Background.

1. Tell me a little bit about yourself and the organization you currently work for?
    a. Brief personal/professional history [prompt]
    b. Brief introduction to the organization [prompt: size, scope, service area]
    c. Mission and vision [prompt: any other target/focus]

Smoking as a Health Priority.

2. Can you tell me your decision making process for prioritizing a health topic?

3. How do you/your organization view smoking as a health behavior?
    a. Pros/cons [prompt]

Collaborations and Partnerships.

4. Does your organization partner with external entities/sectors?

5. Can you describe your experiences with collaborations?
    a. multisector – [beyond usual partners]
    b. pros/cons

Conclusion.

6. Do you have any questions for me or recommendations for the CA Quits project?

Figure 12. Interview Questions: Comparison Counties

Specific protocols were followed when conducting each key informant interview; these included: consent obtained; an introduction and explanation of the study reviewed with the participant; the interview was recorded and completed in-person or by telephone;, and the duration was between 30–60 minutes. The questions centered on the two topic areas under evaluation: 1) Smoking as a health priority, and; 2) Multisector collaborations. The explicit intent of the interview was disclosed: that it was designed to flesh out the decision-making

processes for prioritizing a health topic and how collaborations might be viewed as an approach for addressing a given health topic. Embedded in each of the two guides were prompts and terms tailored to each of the design arms. These were used to extract relevant information on addressing smoking cessation and multisector collaborations. Follow-up prompts were included in the questions to probe for more content and elicit additional information when needed.

Each interviewee was provided an electronic copy of the consent form by email but was asked again for consent at the time of the recorded call. Informational materials regarding the study were provided to interviewees prior to the call indicating that participation was entirely voluntary, and this information was restated at the time of the call. Interviewees were told that the information disclosed during the interview would be deidentified and anonymized, and confidentiality would be ensured. Each recording was transcribed, with all data deidentified, and stored on a secure, password-protected computer maintained solely by me, the principal investigator.

Recruitment of key informants occurred through several approaches: approximately 30 percent by introduction via the DELTA host agency, 50 percent through cold call telephone, and email requests, including a snowball approach, and 20 percent were made via personal professional networks. For each recruitment contact, whether through the host agency, cold call, snowball or personal networks, an introductory email/phone script was provided (see Appendix 6).

Key informants were recruited from five of the six county health departments in the sample. Notably, two separate interviews were conducted within one health department for a total of six interviews, with the following representatives: public health officer(s), division chief, tobacco control program coordinator(s), and project manager(s).

Key informants were recruited from Medi-Cal managed care plans in all six counties in the sample. These include one county plan and five non-profit plans that covered members either statewide or in specific counties and regions in California. The interviewees include: chief medical officer, director, health education coordinator, program manager, and consultant.

Key informants were recruited safety systems in all six counties in the sample. For the CA Quits project and this study, "safety net" systems are defined as clinical systems that are publicly funded and may include disproportionate share hospitals (DSH), Federally Qualified Health Centers (FQHC) and county systems, or federally funded systems, such as, Indian Health Service. The interviewees include: medical doctor, nurse, diabetes coordinator, health education program manager, behavioral health counselor, and pharmacist. The institutions include: public hospital systems participating in the 1115 Waiver PRIME program, a tribal ambulatory care system, a small rural DSH hospital, a county health system, a FQHC, and the Veterans Affairs system.

E. Interview Analysis

The goal of the formative research is to test the viability of project concepts using a theory guided research approach. This orientation allows the researcher to both test theory and assess sensitizing concepts to increase the potential to detect issues that might otherwise be overlooked. This process began with the key informant interview guide questions that were constructed to address the project's proposed theory: CI could be a unifying framework for harnessing multisector collaborations. A codebook was developed to allow themes to emerge from the dataset (see Appendix 7). The steps used to establish the codebook include:

- Review interview excerpts and notes for all interviews;

- Create codes based on interview guide constructs that demonstrate relationship to incentives/disincentives to prioritize smoking; and multisector collaborations
- Extract preliminary themes (experiences, examples, projects, policies, activities)
- Review preliminary themes, compare to the themes/codes in rough draft of the codebook.
- Refine themes/codes and definition/interpretation of codes.

Three coding passes were conducted, each by me, as principal investigator. The coding dimensions used include:

- Strength construct: frequency of terms
- Hierarchical construct: negative, neutral, positive
- Content construct: reference (examples, similes, themes or relationship (inside/specific or outside related))

The codebook includes dimensions from the research question: 1) Prioritizing smoking cessation; and 2) CI saliency. The codebook includes clarification notes and coded excerpts, which were reviewed via a second and third pass and further refined.

IV. RESULTS

The sampling approach used for this formative evaluation began with producing two subsets of three counties each from the original six counties sample. The subsets were used to test the hypothesis that differences in the level of participation in tobacco cessation activities would exist between those counties that received usual CTCP funding and those that received both usual CTCP funding and additional competitive awards. The results demonstrate little indication of any differences in county participation based on this criterion, with one exception. There was a marked difference between the subset county level responses of Medi-Cal plans related to theme #8: Mandates. The Medi-Cal plans in counties with the additional competitive

funding identified an average of three tobacco related mandates that they follow versus a response level averaging two mandates for the counties that did not have the additional funding. It is difficult to determine if the difference in the two groups is due to the funding or some other unrelated aspect. However, it does reveal a need to further investigate why the difference exists, and if certain plans need technical assistance for addressing smoking cessation among low-SES populations and meeting tobacco related USPSTF recommendations (U.S. Preventive Services Task Force 2015).

From the analysis of the key informant interviews, I developed nine overarching themes, which I grouped into two broad types: barriers and drivers (see Table 6). "Barriers" refers to disincentives or impediments to an organization acting in a certain way. Conversely, "drivers" refers to incentives or motivations that drive an organization to act in a certain way. Some themes are sector-specific, while others apply to all three sectors. This information is used to better understand if the CA Quits project scope is aligned with the target sectors' needs and expectations, or if adjustments should be made to the scope of work to ensure that participation adds value to each sector's smoking cessation efforts.

Table 6. Overarching Themes Developed from Interviews

BARRIERS

1. **Social determinants.** The key informants from all three sectors agree that low socio-economic status (SES) populations are inordinately burdened with economic, health, and social challenges that create barriers to quitting smoking.
2. **Marijuana use.** The legalization of recreational marijuana adds a spectrum of marijuana-related issues that confound the smoking cessation efforts of each of the three sectors.
3. **Complex health needs.** For safety net health systems, by necessity, smoking cessation is a lower priority than other, more urgent health problems.
4. **Mental health conditions.** Mental illness and behavioral health conditions confound smoking cessation efforts and create additional treatment challenges for safety net health systems.
5. **Need for more updated smoking cessation strategies, targeted and tailored to low-SES smokers and the sectors that serve them.** Smoking cessation strategies used in safety net systems are limited, based on available resources and provider discretion.
6. **Local politics.** Local politics have a significant effect on the viability of health department options/actions to address smoking.

DRIVERS

7. **Imperatives.** All three target sectors have imperatives for addressing smoking cessation among low-SES populations in their scopes of work.
8. **Mandates.** All three sectors have mandates to address smoking among low-SES populations:
    - Public health departments: government and funder mandates to build and connect smoking cessation supports.
    - Medi-Cal insurance plans: government, state agency, funder, and leadership mandates to cover smoking cessation supports.
    - Safety net health systems: government, funder, and leadership mandates to identify, assess, and advise patients on smoking behavior.
9. **Existing collaborations between sectors.** Collaborations across the three sectors can improve cessation resources, bridge materials gaps, and streamline access to a continuum of supports for low-income populations.

Each of these themes is described in detail below.

A. BARRIERS

1. Social determinants. Key informants from all three sectors agree that low-SES populations are inordinately burdened with economic, health, and social challenges that create barriers to quitting smoking.

This perspective was articulated by 17 of 20 individuals interviewed (6 safety nets, 5 plans and 4 PH departments, and 2 leaders). A director at a Medi-Cal plan said, "Literally, we could take any topic [related to health, economics, and society] and there's a tremendous need among our membership." In light of this, smoking by poor, rural and marginalized populations is thought to be used as a response to the stressful life circumstances faced by these populations. The day to day challenges that create "tremendous need" becomes an impetus for greater reliance on smoking as a coping mechanism. Smoking dependence is exacerbated, leading to normalization and entrenchment in low-SES communities, reducing the potential for prioritizing quitting. Moreover, harmful health impacts are viewed as distant and opaque threats relative to the everyday stresses that are partially quelled by smoking behaviors. This scenario is illustrated by a nurse/health educator for a safety net health care system who commented on the smoking

behaviors among patients: “I think it's also a cultural thing, for people that are low income, I tend to see a lot more smoking [among them], for some reason.” When nurse/health educator asks patients about why they smoke, the response often includes: “‘I use smoking as a stress reliever … I smoke a cigarette then I get to calm down and relax.’”

Other ways that low-SES populations are challenged in their efforts to quit smoking are revealed by a director of a Medi-Cal plan, describing barriers to accessing cessation supports: “transportation is a barrier, time is a barrier, and it just would be so much easier … to take the next step and quit smoking, but first they must see their primary care physician to get a prescription for nicotine replacement therapy, then, even if the replacement therapy is free, the patient still has to get to the pharmacy to fill the prescription.”

In this case, the director is describing the many hoops that low-SES smokers often jump through to get the needed cessation supports. The multi-step process translates into barriers to accessing adequate cessation support and increases the potential of losing patients who are ready to quit. A take-away message is that the health care system needs to improve and streamline access to supports;, it must meet low-SES populations where they are to create and optimize quitting potential.

A social barrier to quitting is the stigmatization of smoking in the wider population; social pressure can actually have a negative impact on smokers who want to quit. A director of a Medi-Cal plan said, “If you’re a smoker, oh, the stares now that you get in public places [are] horrible…. [T]alk about peer pressure and bullying by eyes.” Smokers in the process of quitting can feel like failures, which is not helpful to the cessation process.

Additional challenges that create barriers to quitting for low-SES populations include: understanding insurance benefits, which may include convoluted mechanisms for qualifying for

nicotine replacement therapies, medications and counseling support (e.g., may require pre-approval from Medi-Cal plans, delaying access to NRT treatment; limited access to only a few of the seven FDA approved medications; or limits on the supply (doses) of NRT that are covered)); out of pocket cost sharing or the cost for nicotine replacement therapies (if uninsured or if NRT is categorized as "over the counter" medications); and stressful life and health circumstances, including co-occurring addictions and trauma. A doctor at a safety net health care system said that sometimes when discussing smoking and its health results, a patient will be "kind of very casual [and say], "Hey, you know what? I was in the Vietnam War and I faced death head on, so don't worry about it.'"

One type of cessation support is in-person classes, which can be an effective way to stop smoking, but a barrier to accessing these classes can be the time(s) of day that agencies offer them: A program coordinator at a public health department said, "If you're only offering classes from 1:00 to 3:00 [pm], and our clients are working during that time, then it's difficult for them to access our services." Some organizations have responded to the low attendance at in-person cessation classes by eliminating them altogether. A senior health promotion consultant for a Medi-Cal plan said, "We don't have classes here in the community anymore. The classes have just kind of gone away.… We refer everybody to the Helpline." This reaction has merit since the CTCP's number one cessation asset, the Helpline, is evidence-based, and has extensive resources and the capacity help smokers in variety of languages or with other specialized needs. In-person classes require a lot of local resources and likely create transportation needs. Moreover, the Helpline is underutilized, so more smokers need to be stewarded to this cessation support. However, concerns arise about the underutilization of the Helpline. Does the support provided resonate with low-SES smokers? Do they have preferences for receiving support other than by

telephone? It appears that low-SES smokers would benefit from the option of either the Helpline or in-person supports but, in either case, there are gaps in utilization and barriers to accessing these supports.

2. Marijuana use. The legalization of recreational marijuana adds a spectrum of marijuana-related issues that confound the smoking cessation efforts of each of the three sectors.

In 2016, California legalized the recreational use of marijuana, and 12 organizations interviewed (in 4 of the 6 sample counties), in all three sectors, noted a "surge" in marijuana smoking afterward.[18] Marijuana use is of interest to those working on smoking cessation since it directly overlaps with tobacco use as another normalized smoking behavior. However, because it is a newly legalized activity, the public health and healthcare response to marijuana smoking is emerging. Moreover, data on use and the potential health impacts is lacking, and strategic initiatives to combat marijuana smoking are nascent. Notably, patients are showing up in clinical settings disclosing marijuana use, and, in some cases, seeking cessation support. One health education manager at a safety net health care system said that the vast majority of smoking cessation referrals they issued was for marijuana use, not for tobacco use. "Last year, we had 97 referrals … [only] one of them was [for] tobacco," said the manager.

But the existing ambiguity and lack of cohesion between marijuana and tobacco cessation approaches creates frustration for local governments who conflate marijuana and tobacco control scopes of work. Tobacco control funding, both historically and since 2016 with the new Proposition 56 revenue stream, has strict limitations on how it can be spent. The limits may mean that expenditures for marijuana smoking cessation are expressly excluded, which may not be

[18] While all three sectors indicated that marijuana is an emerging smoking and health concern, it was mentioned by key informants in only four of the six counties: Butte, San Joaquin, Shasta, and Tulare. None of the key informants in the southern California counties (Los Angeles and Riverside) mentioned marijuana use as an issue.

clear to local government officials, outside of health departments. This problem is illustrated by a program manager at a local health department, who said, "We can't outright start a marijuana program and do a bunch of marijuana presentations because that's not within our [work] plan." In addition, a project coordinator in a public health department said, "Discussions [with local government officials] became… well why aren't we using this [funding] for things like marijuana prevention."

Gaps and inaccuracies remain in the health information available regarding marijuana use, which may ultimately confound smoking cessation efforts. For example, marijuana dispensaries in Colorado recommend marijuana use to pregnant women to combat morning sickness.[19] "It was really shocking how many of our pregnant moms were smoking, not just tobacco but marijuana as well," said a health educator with a Medi-Cal plan. A diabetes and tobacco educator at a rural safety net health system said that because marijuana is legal, there is a mindset that there's nothing unhealthy about it, and therefore it is harder to convince someone to quit smoking marijuana than to quit smoking tobacco.

Notably, these concerns extend beyond individual use to public health issues, such as second-hand smoke exposure and whether indoor/outdoor smoking restrictions apply to marijuana smoking as well. There is also confusion about which government or public health entities are responsible for addressing marijuana use restrictions. "People could say, "Well, why is it okay to smoke marijuana out in a courtyard, but you can't smoke [cigarettes]?" noted a program manager of a Medi-Cal plan.

3. Complex health needs. For safety net health systems, by necessity, smoking cessation is a lower priority than other, more urgent health problems.

[19] "Marijuana shops recommend products to pregnant women, against doctors' warnings," KCRA.com, May 10, 2018, http://www.kcra.com/article/marijuana-shops-recommend-products-to-pregnant-women-against-doctors-warnings/20644816.

Low-SES populations often present in clinical environments with urgent and complex physical health needs that require immediate medical intervention and/or management, and therefore, smoking ranks lower in priority to providers. A chief medical officer with a Medi-Cal plan said, "The emergency department thinking … is … 'What do I have to do to keep someone from dying?' and then, 'What do I have to do to keep them from getting in the hospital?' Then maybe I'll get to, 'What do I need to do so that they're healthy before they see the doctor in the outpatient setting?'"

However, to providers and other health care professionals, smoking is considered very important as a factor in chronic disease management and overall health status and appears to be routinely assessed: 16 of the 20 key informants interviewed indicated as much.

However, despite this motivation, practical considerations compel providers, and by extension Medi-Cal plans, to make difficult choices in prioritizing health needs. A Medi-Cal plan director said, "Weight management is [a] really high [priority] because it impacts all those other diseases, and the same goes for smoking behaviors…. [But] Medicaid members … tend to have many co-morbidities "and [the level of] illness is so high. So . . . the weight management or smoking cessation doesn't always make it onto the agenda for [PCP office] visits.… [I]f somebody's drowning … we're going to save them from drowning first, before we teach them how to swim."

Each sector identified the immediate needs caused by chronic conditions as a challenge to prioritizing quitting smoking. However, each also acknowledged that smoking negatively impacts chronic disease status, treatment efficacy and overall health outcomes. For the safety net sector, interviewees from all six counties listed urgent chronic disease issues as a significant health priority over smoking, as did interviewees from the public health department sector in

four of the five counties (there was no interviewee from Los Angeles County). For the Medi-Cal plan sector, all six interviewees also mentioned chronic disease as a priority over smoking; three interviewees said smoking was a significant disease management issue; and one interviewee mentioned smoking during pregnancy as an issue.

In terms of intervening in smoking behavior, a view surfaced centering on the problem of smoking as a personal choice, another barrier to intervening for health care providers. One chief medical officer at a safety net health care system said, "Helping our patients quit smoking has always been something very important to us.… Of course, if they choose not to take that [help], then we document that and move on."

4. Mental illness and behavioral health conditions. Mental illness and behavioral health conditions confound smoking cessation efforts and create additional treatment challenges for safety net health systems.

Fourteen organizations (6 safety nets, 5 plans, 3 PH departments) indicated that mental illness, co-occurring addiction, and other behavioral health issues exacerbate smoking behavior and create additional barriers to quitting. Smoking dependency is both a physiological addiction and a psychological need. As such, questions arise about the effectiveness of traditional smoking treatments (nicotine replacement therapies, medications coupled with counseling) with the cumulative challenges of mental illness and co-occurring addictions. This creates complexity and adds layers to treatment decision-making, including which parts of clinical systems are best prepared and resourced to provide optimal cessation support with these types of patients.

"[Smoking] might be even worse where there's alcoholism or mental health issues or economic issues," said a diabetes and tobacco educator at a safety net health care system. "And in some cases, the reason why [a patient is] using a substance to self-medicate is because of trauma in their life. And it's either trauma that's occurring at this particular time, or trauma that

occurred when they were younger that [has] sort of molded their decision-making process about what they need to do to self-soothe or take care of themselves."

Having a mental or behavioral health issue in addition to the status of "smoker" does not preclude using standard treatments but addressing smoking cessation among low-SES patients with these conditions, who likely have multiple triggers, may require additional treatment planning and use of mental or behavioral health strategies where available. However, there may be additional institutional challenges to addressing smoking among patients with mental and behavioral health conditions. This stems from conflicting professional views of the negative impacts of smoking relative to other addictions and mental health issues. While recovery from substance use and mental illness has popular support for a galvanized public health response, smoking lacks the urgency that these other conditions garner, and may even be considered a harm reduction strategy in some clinical settings. Smoking can be viewed as an acceptable trade-off behavior for those recovering from substance addiction or in individuals struggling with mental illness. A Medi-Cal plan program manager shared her experience working on a collaborative effort where organizations had the mindset that: "Yeah [we know smoking is unhealthy], but we need to understand that the mental health and the behavioral health....clients, and those folks that are going through treatment or rehab or whatever they may be going through, smoking is like it's a crutch, I guess, in a sense, for them. They need that to get through the day."'

Conversely, many clinic system personnel recognize that smokers who struggle with mental and behavioral health issues including addictions need tailored support to quit smoking. One health education manager at a safety net system said that when patients struggle with addictions there is a need to interact with them multiple times, and was concerned that the

Helpline did not do that. “Do they [the Helpline] refer out to classes? Or are they doing the same thing that we’re doing? Are they following up with [patients]? We offer follow-up appointments…. We let them know we are here. You can always call and come and see us again if you need to…. I know with this population especially with addictions, it takes more than one touch.”

One perception shared across a number of the interviewees is there may be a lack of visibility of relevant information about smoking cessation supports for this population, and a lack of inclusion of trauma informed care for quitting, including clear connections between patients, clinicians and resources.

5. Need for more updated smoking cessation strategies, targeted and tailored to low-SES smokers and the sectors that serve them. Smoking cessation strategies used in safety net systems are limited, contingent on available resources, and rely on provider discretion to intervene.

The safety net systems included in this project are highly diverse, reflecting local environments, resources, and populations served. In these systems, smoking status is generally assessed during intake and an initial primary care visit. However, there is a wide spectrum of capacity to address smoking behaviors with low-SES patients and diversity in perspectives about how smoking cessation can be supported after the initial visit. One third of the providers interviewed indicated that while smoking is an addiction, they would not necessarily refer smokers to mental or behavioral health supports, such as mental health providers. Another third indicated that smoking cessation should be managed by behavioral health departments. The final third said that they integrate both physical and behavioral health paradigms in the smoking cessation supports they deliver; these systems typically have on-site cessation supports and do *not* refer patients to external supports, such as the Helpline, as a first option.

"I believe we can do a lot more with [smoking]," said a health education manager for a safety net health care system. "Our behavioral department is actually expanding and they're including a substance abuse wing to it. And I know that they're including … team meetings where they're more focused on the patient's family and their support system, rather than [just] the patient."

For safety net systems in remote or rural areas there are often scarce resources to provide on-site in-person cessation classes, and even when this support is available (through existing collaborative efforts such as inter-agency agreements to support smoking cessation classes), they can be fraught with problems stemming from siloed efforts, internal disconnects in referral flows, and communications gaps. These issues were described by a diabetes and tobacco educator at a rural safety net system who had been conducting tobacco cessation classes for two years: "[We] attended grand rounds…for all of the staff… doctors, PAs… that gave us an opportunity to talk about the program… that the hospital, was sponsoring, and when I asked them, "Where do you send your patients who smoke?"…Nobody raised their hand to tell me anything…then finally someone says that they refer patients to '"1-800-NOBUTTS"'… And I [say], "That's interesting." And then I tell them that for the last two years, I've been facilitating the tobacco cessation program in the cancer treatment center. They say, '"they didn't know that."'

6. Local politics. Local politics have a significant effect on the viability of certain policy options/actions to address smoking.

For *public health departments*, local politics can significantly limit the scope of their smoking cessation programming efforts. This challenge was mentioned in four of the five interviewees from local public health departments. To date, the CTCP has required that local health departments use a specific framework grounded in policy, system, and environmental change, with a focus on policy-based initiatives. This focus can be in conflict with the local

political orientation that views smoking as a personal choice, and it impacts local health department's cessation efforts and can limit partnership activity.

A leader at a local health department said, "The politicians are fascinating because they are very perceptive of public opinion for obvious reasons … so they have their finger on that pulse to a much greater extent that we do." But the problem is that the general public is not invested in public health issues, said the leader. "What always rises to the top is substance abuse, mental health, and those sorts of behavioral health concerns…. [Q]uite frankly, the public isn't that concerned about chronic disease." In certain communities, local health departments can be viewed as paternalistic when attempting to change people's smoking behaviors despite the negative health impacts associated with smoking, including its role in worsening chronic disease.

A logical consequence that follows is that if the public doesn't care about chronic disease and, therefore, the impact of smoking on chronic disease, then it's likely that politicians will not be invested in this issue. These divides can become contentious in regions where tobacco control intersects with political philosophies. "We're in a very conservative area," said a project coordinator at a public health department, "so any efforts to really . . . encourage public health policy [or] policy in general are … met with a lot of resistance…. There are some very strong opinions about government overreach on our board of supervisors."

A project coordinator for a local health department said, "Any public health initiative where you're trying to change people's minds … [needs to get] … people to feel that those last few groups are worth saving, really…. I think a lot of people think, 'Well, the people who still smoke are going to do it anyway and that's their life,' and that's kind of where it stops."

A leader at a local health department said, "[People] think it is all personal decisions: you can choose to smoke or not smoke. So, it's no one else's business. That's what a lot of people here would probably say."

The challenge for local health departments in making smoking cessation a priority is engaging constituents to care about smoking the way that they do about other behavioral health issues that harm community members. There is a need for innovative approaches that resonate with the public in conservative areas, and to articulate that, like other current addiction issues, smoking kills. A significant barrier is getting people to effectively champion the quitting cause and shifting the momentum to an anti-smoking stance.

B. DRIVERS

7. Imperatives. All three target sectors have imperatives for addressing smoking cessation among low-SES populations in their scopes of work.

Local health department goals extend to addressing smoking as a population-level disparity. "The goal of any public health department or program is to reduce disparities," said a program coordinator at a public health department.

The organizational mission of *Medi-Cal plans* is to improve the health of their membership, but administrators also address smoking to adhere to quality improvement measures and increase efficiencies, improve outcomes, and reduce costs.

"We understand that tobacco use is one of the indicators impacting members' overall health and health outcome, and healthcare costs," said a program manager for a Medi-Cal plan. For example, "members who are identified for other health topics, such as asthma, diabetes, COPD, are also assessed for tobacco use."

Within *safety net systems*, "assessing smoking" is nearly universal and mandated by funders and accrediting bodies, but provider motivation to address smoking is more often

connected to reducing the negative effects of smoking on chronic diseases, improving overall health status and care outcomes. “With COPD education … [we make] our patients aware of the fact that really the number one thing they can do for their health, if they’re smoking, is to quit smoking,” said a chronic disease educator at a safety net health system.

In addition to institutionalized organization imperatives, such as mission and leadership, mandates can play an important role in prioritizing and targeting health topics in each safety net system. Leaders come into systems with their unique agenda and vision for improving patient care, systems and outcomes. With safety net systems, there are so many needs that nearly any topic wouldn’t seem out of line among those selected as a leader mandate and priority, and smoking occasionally emerges as one of these. A plan director described the influence of leadership this way: “depending upon what organization you're connected with and the leaders that are in some of those key positions… the level of involvement also is contingent… [in my] personal experience around tobacco and tobacco cessation, I would say it's a high level of interest …. it does have a role in influencing where its place is in terms of that priority list.”

8. Mandates. A number of mandates drive each sector to address smoking among low-income populations.

In addition to organizational-level imperatives, each sector has federal, state, funder mandates that require them to assess and address tobacco use. These mandates take several forms, including performance and quality improvement measures, funder evaluation measures, and accreditation requirements.

In California, there is significant control of health departments by local governments. In addition, local health departments are strongly encouraged to seek voluntary accreditation (funding opportunities are increasingly tied to achieving accreditation), which involves meeting standardized performance criteria and undertaking periodic evaluation. Interviewees from three

counties indicated that public health accreditation is a significant driver for addressing smoking, particularly smoking among ethnic and minority populations.[20] *Local public health department tobacco control programs* are mandated through CTCP funding to create and network local smoking cessation supports. Each of California's 61 public health departments is funded by the CTCP to house a local tobacco control program. These programs are mandated to use a standardized framework, called Communities of Excellence. A significant component of this framework is maintaining the local tobacco coalition to guide a community-based effort. The tobacco coalition is tasked with building connections between community sectors, stakeholders, and cessations resources; however, key informants reported that tobacco programs have primarily focused on policy-based initiatives and smoking cessation efforts are siloed or lack traction in certain clinical settings.

"I see that missing link between the health care providers and us," said a program manager at a public health department. "We can go to them, but that'd be a lot of work… Bringing them on would just give even more awareness about our tobacco program and about the services that we offer, and ideally they'd join our coalition."

Many patients in public health clinics are simply not screened for smoking, explained a health educator in a public health department. This raises the question about perceived inconsistences in smoking assessment, mitigation activities, and capacity within safety net systems.

Medi-Cal insurance plans are mandated by federal and state governments, funders, and leadership to cover smoking cessation supports. Interviewees in all six counties indicated that their plans comply with mandates to assess, advise, and document patient smoking status as

[20] Accreditation includes assessing local public health conditions and creating an improvement plan to meet benchmarks and mitigate disparities.

performance measures. However, there is substantial variation in the stated mandates and mandating agencies to which each plan reported adhering, leading to a lack of clarity about who is the ultimate authority to promulgate and oversee plan compliance with mandates to provide smoking cessation supports and improve tobacco quality improvement metrics. Notably, there is an observed difference between the numbers of mandates identified by plans in intervention counties compared to plans in comparison counties: 3.3 versus 2, respectively (see Table 7). This difference was discussed with a former DHCS coordinator who managed the Health Education Cultural and Linguistic Workgroup (HECLW) and indicated that the difference was not surprising and that counties with competitive grant funding had more active tobacco coalitions with engaged partners including plans, and that plans were continuously encouraged to participate in local health department smoking cessation efforts. In past efforts, plans were made aware of various tobacco mandates and assisted in prioritizing the topic (Roeseler, et al 2018). While this information is anecdotal, it provides some insight into previous efforts to engage plans in prioritizing smoking cessation.

Table 7. Mandates and Mandating Agencies mentioned by Medi-Cal Plans

Region: Plan (County level)	CA Dept of Health Care Services: All-Plan Letter	County Govern-ment	Healthcare Effective-ness Data and Informatio n Set	Staying Healthy Assess-ment (SHA)	Consumer Assessment Healthcare Providers and Systems (CAHPS)	Leader-ship (DHCS or CMO)	USPSTF Guide-lines	12 to 16 Mandatory health education services	Intervention & Comparison Sample Subset (I/C)
Northern CA									
Butte				X	X		X		I
Shasta			X						C
Central CA									
Tulare	X		X			X			I
San Joaquin	X					X			C
Southern CA									

Los Angeles	X		X		X			X	I
Riverside	X	X				X			C

It is difficult to determine what accounts for the variation in stated plan mandates, and there is a lack of clarity about any hierarchy among them. All six health plan interviewees indicated that "compliance" is a priority; however, what constitutes compliance is opaque and appears equivocal. There remains much ambiguity about whether the directives from DHCS or the Healthcare Effectiveness Data and Information Set (HEDIS) are mandatory and to what extent these are followed. This ambiguity likely plays a role in what is known about smoking levels among plans members, leads to a lack of standardization in how data is collected, and how different plans might support smoking cessation. This can confuse or blunt the effectiveness of these mandates.

For example, in the best case situations:

"[The] State is the one that really pushes a lot of the priorities, and that's what really moves everything," said a program manager for a Medi-Cal plan. "When the Smoking APL [All-Plan Letter] got … modified, it became … a priority, to make sure that we were meeting requirements for that." Conversely, a health educator for another Medi-Cal plan explained that:

"In our health risk assessment that goes out to our members, there wasn't a question about tobacco use. That has been changed…. We are looking [forward] to get[ting] NCQA [National Committee for Quality Assurance] accreditation." Another plan representative broadened the idea of mandates further:

"We have a contract with the county to provide services to Medicaid recipients…there's contracts and guidelines and policies that we abide by… Then in addition to that we have to look at, is also, just really good data."

Of note, three plans specifically mention HEDIS measures and the negative consequences for suboptimal performance, which lead to corrective action plans. “The health plans have to meet minimum performance levels for various topics, for various HEDIS measures,” said a senior health promotion consultant for a Medi-Cal plan. “If the health plans do not [achieve these], then [we] have to do what they call ‘Gaps in Care’ and [a] ‘Corrective Action Plan,’ to tell the state how [we are] going to bring those measures up. What interventions are we going to implement?… One of the things that the state looks for when they do their audit is … documentation in a patient chart to see if the provider is documenting about tobacco use. HEDIS falls under quality; gaps in care falls under quality.”

The six *safety net systems* in the study must adhere to mandates that require identifying, assessing, and advising patients on smoking behavior. These mandates are required by government, funding, and regulating bodies, such as Veteran’s Affairs, Indian Health Services, Health Resources and Services Administration (HRSA), Centers for Medicare and Medicaid Services (CMS), and county community clinics. In cases where safety net systems are approved providers in Medi-Cal plan networks they comply with plan requirements to address smoking among covered members.

A health education manager at a safety net system said, “We do have our UDS [Uniform Data System] measures that are given to us, and part of them are through HRSA, but they give us certain indicators that we should be watching out for. And our centers have their own leadership teams.... We really try to work on team care and patient-centered care.”

“Smoking status is part of a lot of things that we have to keep track of,” said a health educator / nurse at a safety net system, “especially the health histories, when things are due, and the screenings—the health screenings for the age groups. We have case management here too.

For the people [patients] that ... have a higher need.… A lot of it is Meaningful Use [measures] that we have to report to the government."

In a tribal system, the mandate to addressing smoking is through the Tribal Council and, by extension, Indian Health Services. "I have an agreement with another clinic… that [also] serves non-Natives, for them to send … all of their tobacco cessation patients to me," said a diabetes and tobacco education at a safety net system. "So, I do serve both Native and non-Native, but it's predominantly Native that I'm contracted for."

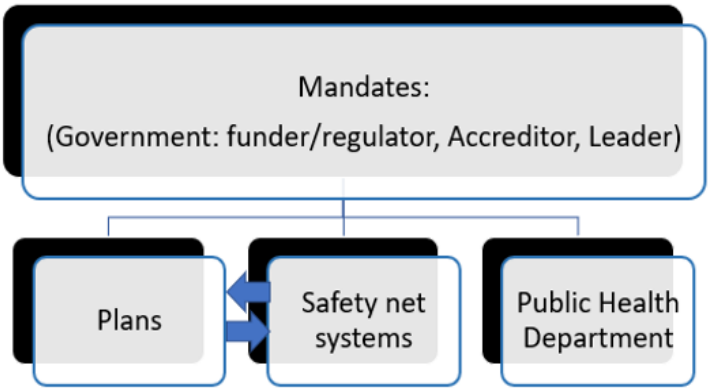


Figure 12. Mandate Data Flows

Five of the six safety net systems (the exception is Veterans Affairs) provide health services to patients covered by publicly funded insurance plans This creates a second stream of mandates to assess patient smoking status (see Figure 12). These mandates originate from regulators, funders, and accrediting bodies to Medi-Cal plans but are effectuated in clinics as part of the plan's provider network compliance requirements.

There is a lack of clarity about how government and grant funder mandates and insurance mandates may overlap, how they are managed, and how data is assessed for reporting/evaluation purposes. Five plans indicate that their performance is tied to provider follow-through on patient charting and documentation in the EMR.

A program manager for a Medi-Cal plan said, "We don't know if doctors are consistently documenting all the smokers as far as their assessment; and if they do [document], what do they do with that information. Do they know where to refer members—either to us or to the California Smoker Helpline? Is there a reminder for them to do that referral? … [I]t would be great to have a standardized EMR-type of system, where it prompts them to … [offer] potential resources … to the member. It would be great if we could offer that type of telephonic prompt to the doctor … encouraging them to consistently refer members to the various helplines, then for us to be able to relay that member smoking progress back to the doctor…. Right now, we don't have that type of seamless … electronic communication system."

9. Existing collaborations between sectors. Collaborations across the three sectors can improve cessation resources, bridge sector materials gaps, and streamline access to a continuum of supports for low-income populations.

Each of the 21 organizations in the CA Quits sample was queried about their experiences with partnerships and collaborations. Marked differences—from engaging in little collaboration to many—exist from sector to sector. Despite these differences, each sector has demonstrated cross-sector partnering to address smoking cessation, namely, with the Helpline. To a lesser extent, partnering occurs within-sector, such as between safety net system departments, particularly, where the system has integrated primary care and behavioral health departments or has a patient health education team.

Moreover, plan and safety net system staffs including providers work together to assess smoking status as a quality improvement measure. Medi-Cal plans also work with a variety of local health departments to stay abreast of public health issues that impact their membership. Collaborative approaches are a mainstay for public health departments; however, their cessation efforts happen largely in siloes that exclude from the safety net system sector.

In *local health departments*, collaborations and partnering is a cornerstone approach. "In a small [rural] community, local relationships, accountability are very important," said a leader in a public health department. "[We] need to leverage efforts with getting others involved … others who have positions of influence and authority and [are] able to accomplish things we can't." Local tobacco coalitions, specifically, spearhead collaborative efforts on cessation. "We're all here with a purpose, and our over-arching purpose is to help clients in our community quit smoking, to prevent youth initiation of smoking," said a program coordinator of a public health department. "To bridge the gap and meet the needs of the community is the most important part about the collaborations that I work with."

However, there are shortcomings in collaborative efforts: a program manager at a public health department said that they need collaborations with health care delivery systems, and a health educator at a public health department said they need a "unified agenda, mutually beneficial activities—more than just presentations and talking … and technical support."

A leader at a public health department said, "The one thing we learned in our tobacco work, if you have an internal champion in whatever organization you're trying to influence, that makes all the difference."

Medi-Cal plans indicate that their scopes of work include collaborating with external health organizations when interests align. Notably, each plan maintains an internal division, called the HECLW that is provider and community-facing (covered member). Five of six plans specifically mention collaborating with local health departments to stay apprised of policy, law, and efforts related to disparities or community health issues. However, these plans also mentioned practical limits to collaborative efforts and specifically pointed out perceived differences between public health and plan scopes of work. A director of a Medi-Cal plan said,

"Health educators from the public health area or departments, their job is to go out and develop relationships and coalitions. But in health plans, it's really about having outputs. [Plan employees] can't afford the time to go out, to be part of these meetings; they want to, but they don't have the time because it's always about getting things done or competing priorities.… Initially, people are enthusiastic and want to participate; but within a handful of meetings, if there's not an outcome or completion of something, that's when the health plan personnel will ask, 'Is it worth it?'"

Other problems that were mentioned by interviewees included insufficient coordinated activity, lack of activity, and gaps in linking patients with the spectrum of quit resources, including the Helpline, but also including streamlining access to NRT, medications, and a variety of counseling approaches that meet patient needs.

Despite the skepticism, all six plans articulated an interest (whether due to organizational imperatives or regulator quality improvement mandates) in collaborating on smoking cessation.

Safety net systems indicate that they engage in limited external partnerships and assess their decisions about partnerships in terms of practical value and clear benefit to patients. "I think I would have to see results—patient results," said a health educator / nurse at a safety net health care system. "We're here to treat and support … the patient … so if they felt it [was] valuable, I think it would be worth doing."

In other examples, the sentiment is that partnerships must align with the safety net system's strategic interests. A health education manager at a safety net system said, "All of these people come together, and we … identify our priority points; and every organization goes back and see[s] how they're going to work on those same things. [A collaboration] would have to be something that would probably align with our strategic plan.… [And we would need to ask,] 'Is

it sustainable for us to pursue [this] kind of initiative' and 'Does it align with what our goals are?' We wouldn't really pursue anything that's more of an outlier."

Given the high demands in safety net environments and limited uncommitted time slots, there is a risk that partnerships are viewed negatively, especially when the return on time investments does not materialize. Just having more meetings is not necessarily beneficial, said a chronic disease educator at a safety net system. "If it was beneficial information that was going to be shared, I could see it could be a good strategy."

Interviewees mentioned a number of potential topic areas that could prompt safety net systems to collaborate with other sectors, including: increasing staff knowledge about insurance benefits/coverage for smoking cessation therapies, smoking cessation related billing and coding issues (Southern 2016), work flows for referring to the Helpline and on-site, in-person programs, documenting smoking cessation in the EMR, and understanding and meeting quality metrics (Shaikh 2017). While there may be reticence about committing to an effort like CA Quits, there is also an opportunity to leverage partner sector resources to increase safety net system capacity to address smoking among their low-SES patients.

V. RECOMMENDATIONS

Despite California's significant success in reducing smoking rates, which was accomplished through restrictive policies and norm change strategies, there is a need for updated, targeted, and tailored smoking interventions that resonate with low-SES smokers and with the systems tasked to address smoking. The CA Quits project is well positioned to engage in activities to bridge many of these gaps via its health care system Redesign initiative. A number of recommendations for CA Quits are discussed below, after a summary of current smoking interventions and known problems for each sector.

A. Current Smoking Interventions

Currently, the two primary resources to address smoking cessation are the California Smoker's Helpline and in-person programs (group cessation classes). The Helpline, a project of the CTCP, is viewed as the state's main cessation resource. It is a well-established population level approach that is evidence-based, demonstrating marked success by doubling quit rates among callers served (McAfee 2007; Zhu 2002). Also, according to the CDC, the [Helpline], is effective with and can be tailored to diverse populations; services are free, [it] removes time and transportation barriers, and services are confidential, [making them] one of the most accessible cessation resources for low-SES residents. Despite this success, data on referral traffic to the Helpline show that it is an underutilized resource, reach is 3 percent of smokers versus the optimal level of 6-8 percent as recommended in the CDC best practices for comprehensive tobacco control programs (Centers for Disease Control and Prevention-Best Practices 2014) .

While providers can refer patients to the Helpline, they are not required to do so, and the choices in mechanisms to make a referral range from passive (e.g., telling the patient to call 1800-NO-BUTTS) to highly involved (e.g., referrals by email, web-based or fax). The most streamlined referrals occur directly through the EMR system but requires costly technological integration, updated policies, workflows and leadership support (North American Quitline Consortium-Barriers and Challenges of Scaling up eReferral 2017).

Many interviewees viewed the Helpline as a reliable asset, but some were skeptical about its saliency with low-income populations because:

- For whatever reason patients don't want to use the 1800 NO-BUTTS (perhaps due to delays in receiving support);

- Using the Helpline is a multistep process that requires: a primary care visit to obtain an NRT prescription (which may need plan approval), a trip to the pharmacy, and follow-up steps for counseling support;
- There is a perception that Helpline services likely do not support patients who have multiple addictions or co-occurring mental illness;
- A telephone-based approach may not resonate with the diverse cultural and social contexts of low-income smokers;
- Time delays associated with using the Helpline result in loss of patient capture at the optimal point of readiness to quit.

The second primary effort to address smoking—in-person programs—have also been shown to be effective, comprehensive, and tailored to meet each patient's needs. But they require a great deal of local resources, and they create barriers for patients, including the times of day that they are available (classes are often held during the day) and transportation demands. As with the Helpline, in-person programs use an array of evidence-based approaches (e.g., the 5As evidence based smoking cessation curricula, cognitive behavioral therapy, and motivational interviewing) and other approaches, depending on available resources and the setting involved. Again, like the Helpline, in-person programming is not mandatory.

Regarding the in-person approach, a diabetes and tobacco educator at a safety net system said, "What started out as a tobacco cessation program has turned into a behavior modification program; because when we talk about tobacco, we couldn't just talk about tobacco, we had to talk about alcohol and [marijuana] and drugs and emotional problems, authority problems. So it became a lot more than just [about] tobacco."

A doctor at a safety net system said, “We immediately offer [patients] the different options. We do have things like nicotine patches. Then we also have a specific Smoking Fixation Clinic where sometimes it helps for patients to sit . . . one-on-one with a counselor and have a more focused approach [than a class is]. So, we do have that option of more personalized treatment approach for the patients.”

A program coordinator for a public health department said that their tobacco cessation classes are well attended and effective. However, on-site programs face a variety of pitfalls, which are often anchored in infrastructure issues, including a lack of adequate and consistent internal/external referral systems, slow-paying Medi-Cal bureaucracies, and overly burdensome requirements, such as, a mandatory primary care visit in order for the in-person class program to receive reimbursement for cessation services.

A chronic disease educator at a safety net system, said, “It got so difficult, because instead of being able to provide [services] through the American Lung Association Freedom From Smoking Program and get a reimbursement for it, there were certain stipulations that [patients] had to see a medical provider. It would be nice if we could … get reimbursement.”

In sum, the top two cessation resources, while essential, are fraught with gaps, shortfalls, process issues, and instability for both smokers and the sectors who serve them.

Other current approaches include the following, many of which intersect and overlap at various points.

Public health/CTCP efforts:

- The Helpline (quit planning, limited counseling, no NRT); current mandates include screening, assessing, advising patients to quit, and informing of available treatments (NRTs and therapies).

- Local tobacco programs, tobacco coalition (network, information, technical assistance);
- CA Quits and other clinic-facing technical assistance partners to outreach to safety net systems.

Medi-Cal insurance plan efforts:

- Smoking cessation treatments (NRT, medications and counseling) coverage;
- Smoking cessation programs/referrals (Helpline or in-person programs);
- Health education materials/chronic disease management support.

Safety net health care system efforts:

- Assess, advise to quit, and refer to cessation supports;
- Educate patients about NRTs and medications; prescribe NRTs and/or counseling options, including the Helpline;
- Provide brief health education or on-site cessation support, if available.

B. Current Gaps in Smoking Interventions

1. Safety Net Systems

- Norm change for clinical setting to actively intervene with smoking behaviors
- Need complete smoking intervention rethink:

A nurse/health educator at a safety net system said, "Smoking patients could benefit from every time they come in, that it be mentioned. I don't know that that's happening because I'm not in the room with the doctor when the doctor is talking to them. But I think that every time they come in, I think it should be mentioned."

A diabetes and tobacco educator with a safety net system said, "Unless [tobacco] is a real issue—either because the patient is experiencing negative effects from their tobacco use or the person who input the information is an advocate for tobacco cessation or the doctor is an

advocate for tobacco cessation…the patient wants to talk about something other than tobacco. Then that's what the doctor's going to talk to them about unless the doctor, himself or herself, makes it a priority to talk about their tobacco usage."

2. Medi-Cal plans:

- Insufficient promotion of benefits coverage for NRT and counseling;
- Too many steps to access NRT, needs streamlining;
- Insufficient activity in linking patients with quit resources beyond the Helpline;
- Insufficient health promotion materials for smoking and chronic disease management;
- Lack of information on strategies to address addiction/mental illness related smoking.

3. CTCP and Local health departments:

- Problem with "brand" among safety net clinics – perceived/real limitation in services for individuals with co-occurring addictions and mental illnesses;
- Problem with multistep processes and time delays with reaching smokers
- Siloed efforts, lack of coordination with safety net systems results in lost reach to at-risk smokers;
- Lack of visibility of tobacco coalition network resources including local in-person class options;
- Lack of support for health education material development (local salience)
- Insufficient work with low-income populations to identify needs and salient approaches

C. Recommendations for CA Quits' Work with the CTCP and Local Health Departments

CA Quits should work closely with the CTCP to optimize the visibility and use of the Helpline. Recommendations include:

- Task the Helpline to work with Medi-Clan Plans to develop IT systems that interface with EMR packages that can enable e-referral to Helpline and provide robust smoker data, including which Medi-Cal plan the patient has, zip code of patient, and follow-up status that is consistent and regular (quarterly for example).
- Study the Helpline's capacity to support smokers with mental illness and behavioral health issues.
- Streamline access to NRTs; have a direct link to a pharmacy from the Helpline or enable pharmacy to provide the NRTs.
- Support local health department demonstration projects that include focus groups or ethnographic studies of low-SES populations' smoking behaviors, needs, and strategies that result in additional promising practices.
- Address marijuana use as a smoking issue that confounds smoking behavior and combat emerging norms around "smoking" marijuana. Perhaps a public health campaign that directly addresses the health impact related to smoking marijuana and use during pregnancy.
- Develop expert speakers' bureaus of academics and business professionals to advocate for local health departments at local government and council hearings.
- Work with CTCP's partner, the Tobacco Education Clearinghouse of California (TECC)/ media unit, on reframing chronic disease to garner public support; develop a tool kit on recruiting and maintaining local champions who can support and advance cessation efforts; recruit champions.

- Connect with safety net systems in remote areas that do not have resources to host on-site programs and network cessation resources. Explore existing collaborative efforts that have resulted in inter-agency agreements to support smoking cessation classes.

D. Recommendations for CA Quits' Work with Medi-Cal Insurance Plans

Medi-Cal insurance plans have an instrumental role in addressing smoking among California's low-income populations. The following recommendations are made for the CA Quits in its collaborations with Medi-Cal plans:

- Medi-Cal plans need to address several issues related to smoking cessation benefits coverage. First among these is ensuring that ACA Medicaid expansion requirements to cover the seven NRT/medications and cessation counseling supports as recommended by the USPSTF are met. Define benefits and provide at no cost to membership. Promote plan benefits among members and raise visibility among provider staffs.
- Work with CA Quits project to better align DHCS and HEDIS mandates, including implementing the DHCS All-Plan letter tobacco use recommendations.
- Work with CA Quits project to co-create patient-friendly health education materials that focus on the impact of smoking on a spectrum of chronic disease, including the potential adverse consequences of smoking on chronic disease treatments and access to advanced treatments (dialysis, organ transplants, cancer treatment, etc.).
- Work with the CA Quits learning collaborative to develop documentation of smoking status in EMR including, referrals, follow up (including diagnosis and billing codes) according to best practice standards, state audit and evaluation purposes.

E. Recommendations for CA Quits' Work with Safety Net Systems

Safety net systems are central to the CA Quits concepts for integrating smoking cessation treatments in clinical settings. CA Quits should assist safety net systems to:

- Outreach and recruit health education staff to assess needs and develop clinically relevant smoking-related information and patient education materials on chronic disease management (engaging, understandable, and written at an appropriate reading level – there is currently a lack of this type of material).
- Work with CA Quits collaborative and local public health departments to develop local patient linkages to community-based cessation resources.
- Participate in CA Quits work group to develop best practices for using EMR to document smokers and develop e-referral interface to the Helpline.
- Work with the CA Quits collaborative to develop concepts for best practice work routines and data flows for intake, treating, referring, and evaluating smoking cessation support outcomes.
- Advocate for normalizing smoking cessation messaging among providers and staff to patients.
- Assess safety net system's use of the Helpline to determine whether it is used according to CDC standards of appropriate referral levels. Monitor and quell risk that the Helpline is overly relied upon; if out of alignment with the needs of the smoking population.

Collaborations across the three sectors can improve cessation supports for low-SES populations. There is a need for collaborations because of the inconsistencies in all three in addressing smoking cessation behaviors and employing mitigation strategies such as referring to the Helpline.

A chief medical officer at a safety net system said of the Helpline, “The beauty of the helpline is that within each of our many different primary care clinics, we probably don’t have smoking cessation capacity or expertise like the helpline does at the ready. We may have a select clinic here and there, a provider, or a nurse, or a counselor, or social worker who’s really good with smoking and has lots of ideas and can really invest the time. That would be the exception and not the rule.… [W]e connect any of our patients with the helpline, and all of a sudden … no matter where they are in the county, they’re getting a quality trained professional intervention for their smoking cessation. [This] can be very reassuring to patients when they know they’re getting someone who really does this all day and it’s their passion.”

VI. CONCLUSION

CA Quits is tasked with facilitating heath care system redesign, a new population-level strategy to mitigate smoking. This strategy relies on safety net health care systems having both imperatives and interests to addressing smoking as a health priority. Integration requires the aid of stakeholder sectors that control, and provide, smoking cessation resources and create integral continuum-of-care cessation supports.

This DELTA project’s formative evaluation sought to assess the value of the CA Quits concepts and scope of work with the three target sectors and address two research questions: 1) Are there enough incentives for the three stakeholder sectors to prioritize smoking behaviors among low-income patient populations? And, 2) is a Collective Impact approach appropriate to achieve the work needed for redesign?

A review of secondary data, through a comprehensive literature review, revealed a significant need for addressing smoking among California’s low-SES populations. The findings from the literature review were confirmed with the themes that emerged from primary data

collected via key informant interviews with all three sectors. The data and themes reveal that each sector has both interests and imperatives for addressing smoking. However, of the three sectors, safety net systems have high demands on provider time and the least ability to engage in discretionary activities. This is a pertinent issue since clinical settings are the central focus of Redesign activity. Despite their limitations, these safety net systems are required to assess smoking status by both funders and regulators. They also work with Medi-Cal plans to document smoking as a quality measure. Beyond these requirements, safety net providers are motivated to address smoking given their role in chronic disease outcomes and to routinely educate identified smokers about cessation treatments and supports. They also indicated, through the interviews, that more can and should be done to address smoking among low-SES populations.

Consequently, the CA Quits project has an opportunity to become a valued partner in safety net system efforts to address smoking. CA Quits and by extension the CTCP, however, must carefully manage redesign activities to minimize the burden on safety net systems and maximize the return for their participation. The other two sectors—Medi-Cal plans and local public health departments—are poised to participate in the CA Quits project. They have the capacity and imperatives to do so but require that collaborative activities be built around tangible achievements that are benchmarked and assessed. In addition, CA Quits must maintain the perspective that each sector cannot by itself bridge gaps in smoking cessation needs for low-SES populations, and, therefore, the project should continuously consider and promote the advantages of leveraging resources across the three sectors to achieve unified goals and objectives. Doing this will imbue CA Quits with legitimacy and engender continued participation towards the singular goal of mitigating smoking among California's low-SES populations.

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Appendices

Appendix 1: CA Quits Project Proposal (2018-2023)

Scope of Work, Exhibit A

Procurement Name: CG 17-10594 Healthcare Cessation Systems Change
Contract Number:
Agency Name: University of California, Davis
Project Name: CA Quits
Project Type: Statewide
Contract Term: 04/02/2018 - 03/31/2023
Effective Date: 04/02/2018
Plan Version ID: 0.2
Report Generated: 09/09/2018 12:49 AM

University of California, Davis

Exhibit A

Scope of Work

Project Name: CA Quits

(For specific due dates and deliverables please see the detailed scope of work available on the California Tobacco Control Program's Online Tobacco Information System (OTIS).)

Objective 1 65.00%

By 03/31/2023, a minimum of 30 health care systems or clinics (e.g. Public Hospital Redesign & Incentives in Medi-Cal Program (PRIME) Hospitals, Federally Qualified Health Centers, Community Health Centers, Veterans Affairs, Family Planning clinics and/or Indian Health Service funded clinics) will adopt and implement a system that includes outcome measures to screen all adult patients for tobacco use and refer identified tobacco users to evidence-based tobacco dependence treatment from the California Smokers' Helpline.

Activity #	Activity	Responsible Parties	Tracking Measures
1-1-1	Recruit, maintain and coordinate a 4-6 member California (CA) Quits Health Care Delivery Systems (HCDS) Advisory Board (AB); members will demonstrate leadership or experience with professional provider groups and/or healthcare system change with representation from: clinical operations, information technology (IT) or electronic medical record (EMR) experts, clinical tobacco cessation treatment specialists, Federally Qualified Health Centers (FQHC) or other affinity partners. The AB will meet 1-2 times per year by teleconference or in-person to advise the CA Quits team on strategic direction and statewide activities.	Operations Director Project Director	Agendas, Meeting Minutes Roster of Board Members
1-1-2	Recruit and engage 6-8 speakers to participate in the CA Quits Community of Learning/ Community of Practice (CoL/CoP) Speakers Bureau as guest lecturers at least 1 time, and to inform material content on the topics of tobacco metrics, quality improvement, alternative payment models, and systems integration of tobacco treatment per United States Preventive Services Task Force (USPSTF) guidelines particularly among vulnerable populations. Maintain a repository of Speakers Bureau participant information including bios, resumes, papers authored, etc.	Maternal and Family Health Officer Project Director Quality Medical Officer	Speakers Bureau Repository Speakers Bureau Roster
1-1-3	Outreach by telephone, email or in-person and recruit 8-10 each PRIME Tracks for Designated Public Hospital (DPH) and District and Municipal Public Hospital (DMPH) stakeholders to participate in a CA Quits CoL/CoP. Participants will identify challenges, needs, priorities and solutions for integrating tobacco quality metrics in practice settings, information sharing, knowledge exchange, and thought leadership	Project Director Quality Medical Officer	PRIME Track Recruitment Log PRIME Track Stakeholder Roster

	needed to achieve systems change for integrating evidence based tobacco cessation approaches.		
1-1-4	Outreach by telephone, email or in-person and recruit 8-10 Affinity Track stakeholders which may be from student health clinics such as University of California (UC), California State University (CSU), and/or FamilyPACT/ Planned Parenthood clinics, FQHC, Community Health Centers (CHC), Indian Health Service (IHS), and inpatient psychiatric facilities to participate in 1-2 CA Quits CoL/CoP to build capacity to implement and report tobacco quality metrics; increase collaboration and coordination with health system partners, access resources, and define solutions to connect patient referrals to the California Smokers' Helpline (CSH).	Maternal and Family Health Officer Operations Director Project Director	Affinity Track Recruitment Log Affinity Track Stakeholder Roster
1-1-5	Conduct 1 PRIME Track and 1 Affinity Track CoL/CoP 60 minute call per month using the curricula and materials developed for each track.	Operations Director Project Director Quality Medical Officer	Affinity Track Agenda and Minutes Participant Roster PRIME Track Agenda and Minutes
1-1-7	Maintain and update the CA Quits website with materials, tools, resources and content such as fact sheets, educational videos, links to tobacco control resources, and opportunities for training and technical assistance. This activity will be shared with both Objectives 1 and 2, but is only listed here to prevent duplicative reporting.	Communications and Education Coordinator Operations Director Project Manager	Log of Web Updates Web Screenshots
1-1-8	Outreach, coordinate, and collaborate annually by phone and/or email with 6-8 partner entities such as statewide professional groups, health organizations, and state health agencies to increase stakeholder communication and promote/provide information on the CA Quits project.	Communications and Education Coordinator DPH/DMPH Coordinator Statewide Provider Coordinator	Contact Tracking Log
1-1-9	Scan the California Department of Public Health (CDPH) Health Information Exchange (HIE) gateway to identify and recruit health systems that have registered intent to report to HIE. Gauge interest to participate in the CoL/CoP and other CA Quits project collaborative efforts; determine technical assistance needs to connect to the CSH and determine what enhancements could be made to improve HIE's communication and functionality.	DPH Coordinator Operations Director Statewide Provider Coordinator	List of Contacts Meeting Notes
1-1-10	Create a CA Quits email listserv of 50-75 contacts and stakeholders interested in tobacco cessation initiatives; promote offers of technical assistance (TA) related to tobacco cessation systems change in healthcare settings; disseminate information, tools, and resources on the impact of tobacco use and exposure to priority populations: e.g. pregnant women, youth, children, and people with mental illness and substance use disorders. Communicate quarterly via the listserv in a newsletter to stakeholders. The newsletter will draw from project data, and partner, policy, community information and experiences including success stories, challenges, and progress of systems change efforts. Profile 1 entity or partner to illustrate progress and showcase work. This activity will be shared with both Objectives 1 and 2, but is only listed here to prevent duplicative reporting.	Communications and Education coordinator DPH Coordinator Project Manager Statewide Provider Coordinator	Listserv Contacts Newsletters/ Log of Communication Disseminated
1-1-11	Regularly communicate with other California Tobacco Control Program (CTCP) funded programs. Weekly, log onto Partners to identify upcoming trainings, new information and advocacy campaign tools, and disseminate this information to the listserv. Monthly, contribute a minimum of 1 post to InfoHub to share information to foster learning and a networking environment. Annually, write a minimum of 1 Spotlight On	Communications and Education Coordinator Operations Director	Copies/Screenshots of Posts Copy of Partners Six Month Login Report

	including significant steps taken, milestones achieved and barriers encountered at the completion of the campaign.		
1-1-12	Conduct monthly meetings (telephone, webinar, face-to-face) with the CSH to discuss IT systems and workarounds to connecting providers with direct referral options and resources.	Operations Director Project Director Project Manager	Meeting Log with Summary of Key Points
1-1-13	Conduct quarterly teleconferences with Smoking Cessation Leadership Center (SCLC), the California Youth Advocacy Network (CYAN), and other representatives (such as behavioral health, dental/oral health, college stakeholders, and the Veterans Administration) to exchange knowledge and increase capacity for reporting tobacco quality metrics for target groups.	Operations Director Project Director Quality Medical Officer	Contact Log
1-3-6	Produce a CoL/CoP PRIME Track white-paper or compendium to disseminate to participants, the CA Quits listserv, public health leadership and other appropriate system partners.	Project Director Quality Medical Officer Senior Quality Medical Advisor	White Paper
1-3-20	Develop a toolkit for statewide provider entities, health clinics, and other tobacco control partners to assess and improve outpatient tobacco treatment services, include: recommendations to document tobacco cessation counseling services, staff scripts and patient resources, and options for direct referral connectivity to CSH; disseminate the tool kit electronically to the CoL/CoP stakeholders, Affinity Track hospitals, clinics, and/or statewide provider organizations.	Communications and Education Coordinator	Toolkit
1-3-21	Document the work flows used to steward patients from assessment to CSH cessation services in 20 PRIME Track organizations and 10 Affinity Track organizations; share best practices and protocols with other systems. Update if work flows are revised throughout the plan.	Communications and Education Coordinator DPH/DMPH Coordinator Statewide Provider Coordinator	Work Flow Charts
1-3-22	Develop a CA Quits (CoL/CoP) project guide describing the purpose and group processes including: participation commitment, learning goals and objectives, roles and responsibilities, intra-project mentoring, and expected benefits. Review the project guide annually and update as necessary. Distribute 20-40 electronic copies of the guide to 20-40 CoL/CoP participants.	Communications and Education Coordinator DPH/DMPH Coordinator Operations Director Statewide Provider Coordinator	Distribution Log Project Guide
1-3-23	Develop a 10-12 months CA Quits CoL/CoP curriculum/ syllabus including concepts, topic areas, and coursework to be covered. The curriculum will be used to prepare instructional materials: monthly agendas, pre-work, activities, slide decks, educational handouts, and other activities.	Communications and Education Coordinator DPH/DMPH Coordinator Operations Director Statewide Provider Coordinator	CoL/CoP Curricula Outline Instructional Materials
1-7-24	Conduct a statewide scan of tobacco referral systems including: PRIME DPH and DMPH hospitals and affiliated clinics, FQHCs, CHCs and other systems such as Maternal Child and Adolescent Health (MCAH) clinics to determine approaches used to meet tobacco cessation metrics; identify EMR technology used, level of integration in EMR and status of connectivity to the CSH.	DPH/DMPH Coordinator Quality Data Analyst Statewide Provider Coordinator	Referral Systems Matrix
1-7-25	Outreach to EMR companies identified in the scan and gather information about the operational capabilities of each system to connect to the CSH; identify gaps in systems capabilities, operations, and work flows; analyze possible adaptations to optimize EMR technology use and streamline referral processes.	Quality Data Analyst	EMR Software Referral Capability Matrix
1-7-26		Quality Data Analyst	PRIME EMR TA Plan

	Use scan data and EMR information to develop a PRIME DPH/DMPH TA plan to support coordination and collaboration; demonstrate approaches to synchronize CSH and PRIME processes.		
1-7-27	Provide 5-10 clinic and/or hospital system leadership, decision makers or their staffs, 15 minutes of education and tool kit materials: fact sheets, links to electronic educational materials, videos and other resources; follow-up via phone or e-mail and provide additional information upon request.	Operations Director Project Director Quality Data Analyst	Log of Educational Meetings
1-11-14	Conduct 2-3, 60 minute educational webinars with a statewide reach for 25-50 provider group representatives (e.g., PRIME, California Primary Care Association (CPCA): FQHC, CHC and rural health clinics) on integrating tobacco cessation metrics into EMR and using EMR tobacco related data for quality reporting systems; use case studies on barriers, challenges and solutions for operationalizing approaches per the USPSTF guidelines, record presentations and post to website.	DPH/DMPH Coordinator Operations Director Project Director Statewide Provider Coordinator	Participant Roster Presentation Slides
1-11-15	Conduct 2-4, 15-30 minute brief webinars, educational presentations, or progress updates for CTCP and its stakeholders (e.g., CTCP conferences, trainings, and/or Tobacco Free California conference calls) regarding CA Quits project and activities.	Operations Director Project Director Project Manager	Presentation Log Presentation Slides/ Materials
1-11-16	Provide 15-20 instances of TA to PRIME entities participating in the CoL/CoP to facilitate linkages between CSH and PRIME Hospitals, and their affiliates including but not limited to FQHCs, CHCs, in-patient psychiatric facilities, MCAH clinics, etc. to support implementation and performance on outpatient tobacco treatment per the USPSTF guidelines via work flows, EMR connectivity to the CSH, and provider training.	Operations Director Project Director Project Manager	TA Log
1-11-17	Provide TA to non-PRIME entities, affiliated clinics, and Affinity organizations on topics including: implementing screening and referral to tobacco cessation counseling, integration processes in electronic medical records, billing, population-based tobacco cessation, compliance and creating smoke-free campus policies in the following ways: 1) 15-20 instances of brief TA (<60 minutes by email, telephone, and/or face-to-face) 2) 6 "office hours" per week 3) 10 instances of adopting/improving the Joint Commission hospital tobacco quality metric for assessment and offering treatment services including FDA-approved medications and counseling.	Statewide Provider Coordinator	TA Log
1-11-18	Create, update and promote a minimum of 2 UC Quits training video modules tailored to California medical and nursing schools and residency programs, particularly those affiliated with PRIME hospital entities and/or receiving Song-Brown funding (Prop 56 tax); also create 2 CA Quits training videos tailored to PRIME hospital tobacco specialists and auxiliary staffs on integrating tobacco cessation protocols and procedures into the clinical work flows, billing and EMR systems for referral to CSH.	Communications and Education Coordinator Operations Director Project Director	Training Video Links or Files
1-11-19	Conduct a 1-day, in-person meeting of 10 tobacco-free champions and/or decision makers at the CSH site in San Diego to educate on the role of CSH and its operations/capabilities. Share progress on health systems redesign and provide a forum for participants to discuss successes, barriers, challenges, and solutions for implementation of evidence-based tobacco cessation treatment.	DPH/DMPH Coordinator Operations Director Project Director Statewide Provider Coordinator	Agenda Roster of Participants
1-E-1	Collection of Process & Outcome Data - Education/Participant Survey Develop and administer a pre/post-test to the PRIME and Affinity Tracks CoL/CoP training participants at baseline to assess changes in knowledge, confidence/preparation and capacity level for implementing and integrating systems change. The assessment will also capture	Operations Director Quality Data Analyst Project Director	Survey Instrument Survey Summary Report

	information on readiness to implement smoking cessation innovations and engage in quality improvement of referral processes including knowledge of metrics, billing/coding, producing tobacco cessation policy and systems. A pen-to-paper or electronic instrument will be used to collect the data. The pre-and post-test will be administered to 12-20 training participants. The survey results will be analyzed using descriptive statistics such as percentages, frequencies, and means will be used to analyze findings.		
1-E-2	Collection of Process & Outcome Data - Education/Participant Survey Develop an online training and technical assistance satisfaction survey and protocol in consultation with the Tobacco Control Evaluation Center and administer to the PRIME and Affinity Tracks CoI/CoP training participants. The survey will consist of 5-10 open and closed-ended answers. The survey will measure the satisfaction of training and technical assistance users. It will be disseminated to a census of 6-10 training participants and distributed semi-annually. The survey results will be analyzed using descriptive statistics such as percentages, frequencies and means to analyze findings. Results will be summarized annually and used to improve training and technical assistance services, the website, and marketing of training and technical assistance services.	Quality Medical Officer Senior Quality Medical Advisor Maternal and Family Health Coordinator Quality Data Analyst Project Director	Survey Instrument Survey Summary Report
1-E-3	Collection of Process Data - Key Informant Interview Conduct 4-6 Key Informant Interviews (KIIs) with participants in the CoL/CoP stakeholder groups to collect qualitative data on the CA Quits CoL/CoP activities, and to inform future direction. Develop KII questions including (barriers, challenges, and successes to achieving systems change to integrate tobacco cessation strategies into health care delivery systems, incentives/disincentives for addressing smoking cessation with Medi-Cal patient populations; special and vulnerable populations, etc; material, structural and policy needs for systems change and integration of smoking cessation strategies). The KII questions will be developed in consultation with the Tobacco Control Evaluation Center (TCEC). Each interview will be 30-60 minutes in length.	Operations Director Quality Data Analyst Project Director	KII Analysis KII Instrument
1-E-6	Final Evaluation Reporting	Operations Director Quality Data Analyst Project Director	Performance Measure Spreadsheet
1-E-7	Collection of Process & Outcome Data - Other Develop and maintain a spreadsheet data system to track up to 30 PRIME entity's performance on the outpatient tobacco counseling quality metric and/or Meaningful Use Specialized Registry.	Operations Director Quality Data Analyst Project Director	Performance Measure Spreadsheet
1-E-8	Collection of Process Data - Other Conduct consumer testing to assess feedback on the look, feel, content, language, approach, and action steps in educational materials such as the toolkit and project guide. Develop the consumer testing instrument using guidelines from the Tobacco Education Clearinghouse of California (TECC). Conduct a minimum of one online survey with health care providers or health care stakeholders to assess the appropriateness of educational materials developed to promote the CA Quits initiatives. Each online survey will include a purposive sample of at least 7 people total. For each online survey a record will be made of participant responses. A summary report will detail participant responses to materials, make recommendations for revisions, and/or provide suggestions for the educational materials.	Operations Director Project Director Project Manager	Consumer Testing Instrument Consumer Testing Summary Results

Objective 2 35.00%

By 03/31/2023, a minimum of 5 Department of Health Care Services (DHCS) Medi-Cal Managed Care Plans (MCMCP) will participate in a tobacco work group to implement and integrate smoking cessation prevention and treatment programming. This includes connecting each participating entity with county resources and supporting consistent and routine promotion and referral of patients identified as smokers to the California Smokers' Helpline (CSH).

Activity #	Activity	Responsible Parties	Tracking Measures
2-1-3	Recruit and engage a speaker's bureau of 4-6 topic experts to present 1 time per year to the work group on tobacco related health care costs to MCMCP and priority populations, the All-Plan quality improvement efforts, Healthcare Effectiveness Data and Information Set (HEDIS) measures, and systems integration for tobacco referral processes, and treatment opportunities.	Maternal and Family Health Officer Project Director Quality Medical Officer	Speakers Bureau Roster
2-1-4	Outreach in-person, by telephone and/or email to 6-8 of the 26 MCMCP through the Health Education Cultural and Linguistics Workgroup and DHCS Department of Managed Care to participate in the MCMCP work group to build capacity to implement the 8 components of the All-Plan Letter and/or adopt HEDIS tobacco measures.	Project Manager	Outreach Log
2-1-5	Conduct 1 MCMCP work group call quarterly to increase knowledge, build capacity to implement and comply with the 8 DHCS All-Plan letter components; facilitate systems change, innovation, and improve quality of tobacco cessation referral processes.	Project Manager	Agenda
2-1-6	Provide 1-2 presentations annually on the 8 components, DHCS All-Plan Letter to the MCMCP work group on tracking measures prescribed by Staying Healthy Assessment (SHA) and tobacco treatment per the USPSTF guidelines.	Project Manager	Presentation Materials
2-1-7	Compile and provide an annual list of local evidence-based tobacco cessation and prevention resources to enable MCMCPs to promote to their membership, resulting in the number and type of products promoted by the plan.	Project Manager	Contact Log List of Prevention and Cessation Resources
2-1-8	Outreach by telephone and/or email the 25 MCMCP to encourage them to attend or present at the LLA county or regional tobacco coalition meetings to foster information sharing and knowledge exchange between programs and entities and disseminate information and resources.	Project Manager	Outreach and Collaboration Log
2-1-9	Access the ROVER library and other sources for recent information about tobacco dependence treatment quality metrics; post relevant materials to website and disseminate via listserv.	Communications and Education coordinator Project Manager	Rover Library Article List Summary of Key Findings
2-3-1	Develop a MCMCP work group guide which will describe the purpose and processes of the group including: learning goals/objectives, roles, thought leadership, knowledge exchange, and benefits of participation.	Communications and Education coordinator Operations Director Project Manager	Work Group Guide
2-3-2	Develop a MCMCP work group curriculum with topics focused on the 8 DHCS All-Plan Policy Letter components, special populations and tobacco impacts, learning objectives, agendas, pre-work and other activities.	Communications and Education coordinator Operations Director Project Manager	Work Group Curriculum
2-3-10	Partner with 25 MCMCP to provide derivatives of CTCP and CSH media and educational materials that promote tobacco cessation and disseminate approximately 300,000 pieces via direct mailing, fax, or electronic distribution.	Communications and Education coordinator Operations Director Project Manager	Distribution Log PDF of Materials Disseminated
2-3-16	Develop 3-5 informational materials, such as fact sheets on the 8 DHCS All-Plan Letter components and disseminate to the Department of Education (DOE) Tobacco-Use Prevention Education (TUPE), School-	Communications and Education coordinator Project Manager	Materials Created/ Disseminated

	Based Health Centers including benefits for pregnant women, service providers, prevention of tobacco use in children.		
2-3-18	Create 2 CA Quits education/ information videos, host on the CA Quits website: 1 each MCMCP and MCAH partner's activities, outcomes and progress on the 8 components of the DHCS All-Plan letter.	Communications and Education coordinator Project Director Project Manager	Training Video Links or Files
2-3-19	Create an education/information video or PowerPoint Presentation showcasing MCMCP community based classes to demonstrate the extent of the classes with the CSH for different communities. Topics may include: secondhand smoke, in-language smoking cessation resources, and motivational messages for those not ready to quit. Host videos on CA Quits website.	Communications and Education coordinator Maternal and Family Health Officer Project Director Project Manager	Training Video Links or Files
2-7-12	Conduct a scan of Local Lead Agencies (LLAs) to determine the spectrum of county level tobacco cessation objectives proposed, and potential LLAs interested in working with the CA Quits project. Map LLA tobacco objectives and identify gaps in linkages within and between PRIME hospitals and affinity groups, and public health, academic partners to increase connectivity to the CSH. Use LLA scan and mapping data to develop a readiness framework and technical assistance (TA) plan to support objective achievement, including, facilitating network coordination, collaboration, and communicating tobacco information and systems operations. Update annually to reflect any changes impacting gaps, linkages, and/or readiness.	Operations Director Project Manager Quality Data Analyst	LLA Objective Summary Matrix of Gaps and Linkages Readiness Framework/ TA Plan
2-7-14	Conduct a scan of the Maternal Child and Adolescent Health (MCAH) tobacco programs, activities, and potential stakeholders to determine the spectrum of measures and metrics used, and to determine capacity, performance and systems integration level. Use scan to identify gaps and to develop a MCAH TA plan for improving cessation assessment and referral linkages to resources, healthcare partners and to increase patient connectivity to the CSH.	Operations Director Project Manager Quality Data Analyst	Matrix of Metrics TA Plan
2-7-15	Conduct a scan of the available resources and educational materials for MCMCP and MCAH service providers that could be disseminated to pregnant women; coordinate with Quit for Baby, Smoke Free Moms, and other MCAH experts to compile a tool kit for pregnant women to support tobacco free pre/postnatal health.	Communications and Education coordinator Maternal and Family Health Officer Project Manager	Educational Materials List of Materials
2-7-20	Outreach the First 5 Board of Directors in person to engage in population level cessation systems change; attend their annual meeting in conjunction with CSH in Sacramento and provide a report on CA Quits activities, progress towards systems change and best practices.	Operations Director Project Director Project Manager	Contact and Meeting Log Presentation Materials
2-7-21	Communicate with DHCS Medical Director's office quarterly by phone, email or in person to provide an update on the adoption of the system level quality measure components of "tobacco use status assessed" and "referrals to tobacco cessation counseling."	Operations Director Project Director Project Manager	Log of Updates to DHCS Medical Director
2-7-22	Create a grid of MCMCP current tobacco dependence treatment coverage; update the grid annually as benefits and information changes; post to CA Quits website and disseminate via listserv.	Operations Director Project Manager Quality Data Analyst	Tobacco Cessation Insurance Coverage Grid
2-11-11	Outreach by phone and/or email to LLA Project Directors in regions where CA Quits is working with PRIME hospitals and clinics to notify them of initiative and activities with health systems in their jurisdiction. Also, outreach to MCMCP's MCAH partner program directors in regions where CA Quits is working to notify them of initiative and activities with health systems in their jurisdiction. Make 3 attempts to contact each LLA Project Director and MCMCP or MCAH partner program director.	Project Manager	Matrix of Contacts and Outreach Results
2-11-13			TA Log

	Provide statewide TA to LLAs, MCMCPs, and MCAH and voluntary organizations (e.g. American Cancer Society, American Heart Association, American Lung Association) on topics specific to each sector including but not limited to: LLA addressing performance challenges and barriers on tobacco cessation objectives; MCMCP compliance with the 8 DHCS All-plan letter components; building linkages to health system partner and increasing connectivity to the CSH and expanding reach and effectiveness with special populations: 1) 1-2 (<60 minutes) webinars to 25-50 participants on tobacco cessation system change and population health strategies and approaches; 2) 6 "office hours" per week (by month 1, then weekly) 3) 5-10 brief episodes (<30 minutes) of T/A to leadership 4) 1-2 (60 minute) webinars to thought leadership on Medi-Cal data and its usage for population level tobacco cessation approaches and targeting special populations	Operations Director Project Director Project Manager	
2-11-17	Conduct 6-10 educational visits of 5-15 minutes each to DHCS, MCMCP Medical Directors, the HECLW workgroup, and other stakeholders regarding the outpatient tobacco counseling metric and other quality measures.	Maternal and Family Health Officer Operations Director Project Director Project Manager	Educational Visit Log
2-E-1	Collection of Process & Outcome Data - Education/Participant Survey Develop and administer a pre/post-test to the work group participants at baseline and completion of work group cycle. Survey will assess changes in knowledge of tobacco related health care costs to MCMCP and priority populations, improvement of All-Plan benefit delivery, HEDIS measures, and systems integration for tobacco referral processes and treatments. Survey will also assess readiness and capacity level for meeting quality improvement tobacco metric. A pen-to-paper or electronic instrument will be used to collect the data. The pre- and post-test will be administered to a total of 10-16 training participants. The results will be analyzed using descriptive statistics such as percentages, frequencies, and means will be used to analyze findings.	Operations Director Quality Data Analyst Project Director Project Manager	Survey Instrument Survey Report
2-E-2	Final Evaluation Reporting	Operations Director Quality Data Analyst Project Director	Brief Evaluation Report
2-E-3	Collection of Process Data - Other Analyze outcome measures (number, percentage and quality of policies passed), protocols adopted, alignment with Medicaid Managed Care Plans All-Plan recommendations or other patient system tracking measures implemented demonstrating readiness to engage in system change and redesign. Measures will be used in conjunction with a theory of change: Collective Impact model, enabling an assessment of factors that require alignment leading to increased potential to adopt and implement recommended innovations: to screen patients for tobacco use and refer to treatment per USPSTF guidelines.	Operations Director Senior Quality Medical Advisor Project Director	Analysis Summary
2-E-4	Collection of Process Data - Other Conduct consumer testing to assess feedback on the look, feel, content, language, approach, and action steps in educational materials such as fact sheets and educational video scripts. Develop the consumer testing instrument using guidelines from the Tobacco Education Clearinghouse of California (TECC). Conduct a minimum of one online survey with health care providers, Local Lead Agency partners, and other stakeholders to assess the appropriateness of educational materials developed to promote the CA Quits interventions. Each online survey will include a purposive sample of at least 7 people total. For each	Operations Director Project Director Project Manager	Consumer Testing Feedback Summary Consumer Testing Instrument

	online survey, a record will be made of participant responses. A summary report will detail participant responses to materials, make recommendations for revisions, and/or provide suggestions for the educational materials.		
2-E-5	Collection of Process Data - Education/Participant Survey Develop an online training and technical assistance satisfaction survey and protocol in consultation with the Tobacco Control Evaluation Center and administer to the PRIME and Affinity Tracks CoI/CoP training participants. The survey will consist of 5-10 open and closed-ended answers. The survey will measure the satisfaction of training and technical assistance users. It will be disseminated to a census of 6-10 training participants and distributed semi-annually. The survey results will be analyzed using descriptive statistics such as percentages, frequencies and means to analyze findings. Results will be summarized annually and used to improve training and technical assistance services, the website, and marketing of training and technical assistance services.	Quality Medical Officer Quality Data Analyst Project Director	Survey Instrument Survey Results Summary

Appendix 2: Coverage for Tobacco Cessation

Coverage for Tobacco Cessation[19]

Type of Insurance	Is tobacco cessation covered?	What is covered?	What is the cost to the patient?
Medicare (a federal health insurance program for people age 65 and older and for those under age 65 with certain disabilities)	Yes, as of 1/1/11[20]	▪ Two counseling attempts per year (up to four sessions for each attempt or a total of eight sessions every 12 months). ▪ Prescription drugs for tobacco cessation are covered but not over-the-counter treatments such as nicotine patches or gum (since over-the-counter treatments are not covered by Medicare in general).[21] ▪ The ACA establishes a new Annual Wellness Visit for Medicare recipients, which should include questions and personalized health advice about behavioral risks, such as tobacco use.[22]	▪ No cost if provided as a preventive service. ▪ For Medicare beneficiaries with diagnosis of a disease or condition caused by tobacco use, a co-pay and deductible apply.[23]
Traditional Medicaid (a health insurance program for people with low income, jointly funded by the federal and state governments and managed by the states)	Not necessarily. For pregnant women in Medicaid, comprehensive cessation coverage was required under the ACA as of 10/1/10.[24]	▪ As of January 1, 2014, tobacco cessation drugs, including over-the-counter medications, can no longer be excluded under Medicaid.[25] ▪ For pregnant women, comprehensive cessation coverage should include counseling and can include tobacco cessation medication, if doctor-approved.[26] ▪ Tobacco cessation coverage is required for children and adolescents (up to age 21) when medically necessary. ▪ Other (non-pregnant, adult) Medicaid beneficiaries could be eligible for other cessation services, such as counseling, depending on the benefits offered through the state Medicaid plan.[27] ▪ State tobacco quit-lines that meet certain standards are encouraged because they are eligible for a 50% administrative matching rate by the federal government.[28]	▪ Out-of-pocket costs, such as a co-pay, could apply depending on your particular state plan. ▪ No cost for pregnant women.
Medicaid Expansion (for low-income adults up to 138% of the poverty level in states that choose to expand Medicaid)[29]	Yes, as of 1/1/14.[30]	▪ Tobacco cessation must be provided at no cost as an "essential health benefit," which includes "preventive and wellness services" as well as "mental health and substance use disorder services." ▪ Coverage is likely to vary by state.	▪ No cost if provided as a preventive service.
Individual health insurance purchased through a state-run Exchange or Marketplace	Yes, as of 1/1/14.[31]	▪ Tobacco cessation must be provided at no cost as an "essential health benefit," which includes "preventive and wellness services" as well as "mental health and substance use disorder services."[32] ▪ Because the U.S. Department of Health and Human Services has not officially defined tobacco cessation benefits, the level of coverage will vary by the state and the individual health insurance provider.[33]	▪ No cost to the patient if provided as a preventive service.

(Source: Tobacco Control Legal Consortium 2014)

Appendix 3. California Federally Qualified Health Centers (2016)

California Health Care Foundation

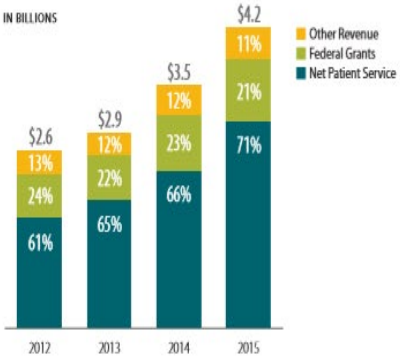
California Federally Qualified Health Centers | Additional quick reference guides available at www.chcf.org.

CALIFORNIA HEALTH CARE ALMANAC QUICK REFERENCE GUIDE NOVEMBER 2017

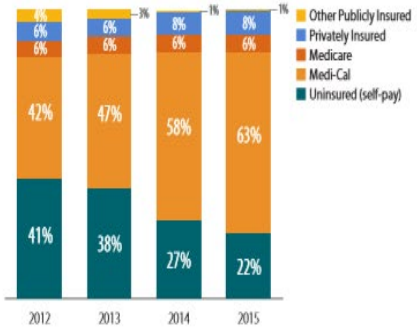
Facilities	2012	2016	Growth
Organizations	129	176	36.4%
Delivery Sites	933	1,454	55.8%

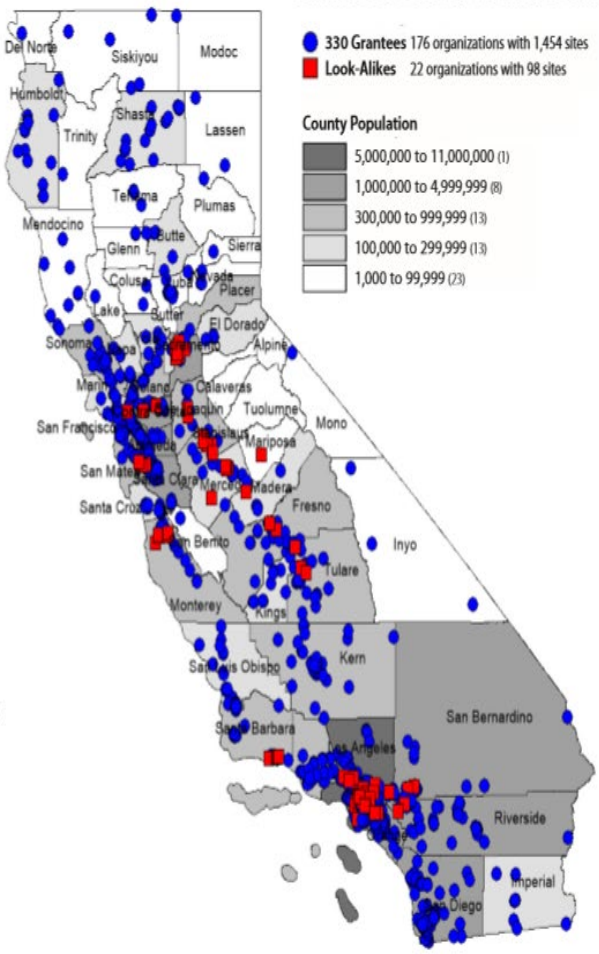
Use	2012	2015	Growth
Total Patients	3,612,446	4,095,628	13.4%
Total Visits	14,146,742	18,077,145	27.8%

Revenue, by Source, 2012 to 2015



Patient Payer Mix, 2012 to 2015





Sources: Uniform Data System, Health Resources and Services Administration (HRSA), 2015. HRSA database for all CA Section 330s and LALs (map as of August 16, 2016). U.S. Census Bureau, county population estimates, 2015.

CALIFORNIA HEALTH CARE FOUNDATION

Appendix 4: Index of Disparity Calculations by County

1. Smoking prevalence by race and <150% FPL: Shasta County					
Best group (n = 4) reference: 24.1	Rate: Smoking	Deviation (from reference group)	Average group (n = 5) reference: 34.7	Rate: Smoking	Deviation (from reference group)
AIAN	69.3	45.1	AIAN	69.3	34.6
API	30.4	6.3	API	30.4	4.3
AA	66.7	42.6	AA	66.7	32
Hispanic	24.1	0	Hispanic	24.1	10.6
White	36.5	12.4	White	36.5	1.8
Sum of deviations:		116	Sum of deviations:		83.3
Index of Disparity: 116/4 = 29/24.1 = 1.20			**Index of Disparity: 83.3/5 = 16.66/34.7 = .48**		
2. Smoking prevalence by race and <150% FPL: Butte County					
Best group (n = 3) reference: 22.7	Rate: Smoking	Deviation (from reference group)	Average group (n = 4) reference: 24.9	Rate: Smoking	Deviation (from reference group)
AIAN	51.3	28.6	AIAN	51.3	26.4
2 Races	41.3	18.6	2 Races	41.3	16.4
Hispanic	22.7	0	Hispanic	22.7	2.2
White	30.2	7.9	White	30.2	5.3
Sum of deviations:		55.1	Sum of deviations:		47.3
Index of Disparity: 55.1/3 = 18.37/22.7 = .81 ID			**Index of Disparity: 47.3/4 = 11.825/24.9 = .47 ID**		
3. Smoking prevalence by race and <150% FPL: San Joaquin County					
Best group (n = 3) reference: 12.7	Rate: Smoking	Deviation (from reference group)	Average group (n = 4) reference: 19.4	Rate: Smoking	Deviation (from reference group)
Asian	20.9	8.2	Asian	20.9	1.5
AA	37.4	24.7	AA	37.4	18
Hispanic	12.7	0	Hispanic	12.7	6.7
White	26.9	14.2	White	26.9	7.5
Sum of deviations:		47.1	Sum of deviations:		33.7
Index of Disparity: 47.1/3 = 15.7/12.7 = 1.23 ID			**Index of Disparity: 33.7/4 = 8.425/19.4 = .43 ID**		
4. Smoking prevalence by race and <150% FPL: Tulare					
Best group (n = 4) reference: 14.5	Rate: Smoking	Deviation (from reference group)	Average group (n = 5) reference: 18.6	Rate: Smoking	Deviation (from reference group)
AIAN	71.3	56.8	AIAN	71.3	52.7

2 Races	22	7.5	2 Races	22	3.4
Asian	22.4	7.9	Asian	22.4	3.8
Hispanic	14.5	0	Hispanic	14.5	4.1
White	34.2	19.7	White	34.2	15.6
Sum of deviations:		85.9	Sum of deviations:		79.6
Index of Disparity: 85.9/4 = 21.5/14.5 = 1.48 ID			**Index of Disparity: 79.6/5 = 15.92/18.6 = .86 ID**		
5. Smoking prevalence by race and <150% FPL: Los Angeles					
Best group (n = 4) reference: 11.3	Rate: Smoking	Deviation (from reference group)	Average group (n = 5) reference: 14.7	Rate: Smoking	Deviation (from reference group)
AIAN	35.2	23.9	AIAN	35.2	20.5
Asian	11.3	0	Asian	11.3	3.4
AA	23.9	12.6	AA	23.9	9.2
Hispanic	12	.7	Hispanic	12	2.7
White	25.1	13.8	White	25.1	10.4
Sum of deviations:		51	Sum of deviations:		46.2
Index of Disparity: 51/4 = 12.75/11.3 = 1.13 ID			**Index of Disparity: 46.2/5 = 9.24/14.7 = .63 ID**		
6. Smoking prevalence by race and <150% FPL: Riverside					
Best group (n = 4) reference: 11.9	Rate: Smoking	Standard Deviations	Average group (n = 5) reference: 17.5	Rate: Smoking	Standard Deviations
AIAN	42.7	30.8	AIAN	42.7	25.2
Asian	14.2	2.3	Asian	14.2	3.3
AA	23.4	11.5	AA	23.4	5.9
Hispanic	11.9	0	Hispanic	11.9	5.6
White	29.3	17.4	White	29.3	11.8
Sum of deviations:		62	Sum of deviations:		51.8
Index of Disparity: 62/4 = 15.5/11.9 = 1.3 ID			**Index of Disparity: 51.8/5 = 10.36/17.5 = .59 ID**		

Appendix 5: Key Informant Interview Guides, Consent Form, IRB Approval Letter

Key Informant Interviews: Topic guide

Introduction:	
Me:	Thank you for taking the time to speak with me. My name is Jackie Kaslow. I am a student at the T. H. Chan Harvard School of Public Health; in the Doctor of Public Health (DrPH) program. The last year of my academic program is conducted in the field in an applied setting. In my case, my applied work is with the CA Quits program at UC Davis and led by Dr. Elisa Tong.
Purpose:	The purpose of this interview is to learn about your experiences and perspective as a [**leader, expert, experienced professiona**l] in [**provider services, public health, Medicaid Managed Care Plans, etc.**] in two topic areas: 1. Addressing smoking as a health behavior; and 2. Multisector collaborations as an approach to addressing health issues My goal is to better understand the decision making processes for prioritizing a health topic and how collaborations might be considered as an approach for addressing a given health topic
Practicalities:	This interview should take no more than 45 minutes. I need to mention that you have consented for me to interview you as part of my academic field work. The information discussed will help with concepts I am exploring at as part of my DELTA project.
	Please note that throughout the course of our discussion I will ask you a number of questions - there are no right or wrong answers to these. Also, if I interrupt you at any point please understand that my intent is to ensure that we cover pre-identified topics in time allotted.
	If it is okay with you, I will record our conversation. This will ensure that I capture everything accurately and will help me with my analysis.
	When covering the questions, you are welcome to skip any that you would rather not answer. You can also stop the interview at any time. If you do not understand any of the questions, please let me know and I will clarify them.
	Do you have any questions before we start?

Consent Form CA Quits Key Informant Interview

Study: CA Quits: Redesigning the Health Care System to Combat California's Smoking Disparities, A DELTA Doctoral Thesis

You are being asked to take part in a research study.

This research is being conducted to learn about the experiences and perspectives of health care providers, leaders and professionals in two topic areas:

1. Addressing smoking as a health behavior; and

2. Multisector collaborations as an approach to addressing health issues

My goal is to better understand the decision making processes for prioritizing a health topic and how collaborations might be considered as an approach for addressing a given health topic.

You are being asked to participate in this research because of your leadership, expertise, knowledge or employment in one of three health sectors: 1) A heath care safety net service delivery system, 2) A public health department; and 3) A Medicaid managed care plan and because of your working knowledge of health priorities, quality improvement or economic interests and partnerships and collaborations within and beyond your sector.

Your participation in this study is voluntary and you may withdraw your participation at any time for any reason.

If you take part in this study, you will be asked to be interviewed individually, in a private office or space or by telephone for 45 to 60 minutes. With your consent you are giving your permission to the researcher to record the interview using an audio recording device and to allow notes to be taken during the interview. Specifically, you will be asked a number of questions about smoking as a health priority and multisector collaboratives as a strategic approach to addressing health behaviors such as smoking cessation.

An example of the type of question you will be asked is:

How do you/your organization view smoking as a health behavior?

You can decline to answer any of these questions for any reason and can terminate your participation at any time.

If you have any questions about this study, you can contact: Jackie Kaslow @ 310-430-0373 or by email: ank646@mail.harvard.edu..

Thank you again for your time and participation.

I confirm that I have **read and understand the information** provided regarding the goals and purpose of the study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☑

I understand that my **participation is voluntary and that I am free to withdraw** at any time without giving any reason. ☑

I agree **to the interview being digitally recorded**. ☑

I **agree that excerpts from the interview may be used** in the study report and that I will not be identifiable in any way. ☑

I **agree to take part** in the above study. ☑

Institutional Review Board: Exemption Determination Letter

HARVARD
Human Research Protection Program

Harvard T.H. Chan School of Public Health
Office of Human Research Administration
90 Smith Street, 3rd Floor
Boston, MA 02120
Federalwide Assurance FWA00002642

Notification of Initial Study Exemption Determination

January 9, 2018

Angela Kaslow
ank646@mail.harvard.edu

Protocol Title:	CA Quits: Redesigning the Health Care System to Combat California's Smoking Disparities, A DELTA Doctoral Thesis
Principal Investigator:	Angela Kaslow
Protocol #:	IRB17-2074
Funding Source:	None
IRB Review Date:	1/9/2018
IRB Effective Date:	1/9/2018
IRB Review Action:	Exempt

This Initial Study submission meets the criteria for exemption per the regulations found at 45 CFR 46.101(b)(2). As such, additional IRB review is not required.

The Principal Investigator is responsible for ensuring compliance with any applicable local government or institutional laws, legislation, regulations, and/or policies, whether conducting research internationally or nationally. Additionally, if local IRB/ethics review is required, it must be obtained before any human subjects research activities are conducted in the field. If assistance with applicable local requirements is needed, please contact the Harvard T.H. Chan School of Public Health IRB office.

The determination that your research is exempt does not expire, and you will not file annual renewals. If changes to the research are proposed that would alter the IRB's original exemption determination, they should be submitted in ESTR by using the Modify Study button. If unsure, contact the Harvard T.H. Chan School of Public Health IRB office.

The IRB made the following determinations:

- Research Information Security Level: The research is classified, using Harvard's Data Security Policy, as Level 2 Data.

Please contact me at 617-432-3071 or gbullock@hsph.harvard.edu with any questions.

Sincerely,

Grace Bullock

University Area IRB http://cuhs.harvard.edu
Longwood Medical Area IRB http://www.hsph.harvard.edu/ohra/

Appendix 6: Key Informant Interview Recruitment Script - Examples

Example 1.

Dear XX,

My name is Jackie Kaslow, and I am a DrPH candidate at the Harvard School of Public Health. I am completing my dissertation on a project funded by the California Tobacco Control Program and awarded to the UC Davis Medical Center entitled, CA Quits.

CA Quits is a statewide initiative with the goal of integrating smoking cessation approaches into safety net health care delivery systems and thus increasing patient access to cessation supports. CA Quits attempts to achieve this through partnering with three sectors:

- Safety net health care delivery settings;
- Public Health departments; and
- Medicaid managed care plans

In a nutshell, I am conducting a formative evaluation of CA Quits to better understand these sector's (1) processes for addressing health behaviors and (2) views on participating in multi-sector collaborations.

I am reaching out to representatives from each of these in hopes of gathering perspectives and nuances from the field that may not be apparent in county data. My research goal is to identify any needed alterations to the CA Quits project and to maximize its value to its target sectors.

Thank you in advance for considering this request.

Best regards,
Jackie (Angela) Kaslow, DrPHc 2018
Ank646@mail.harvard.edu

Example 2.

Dear

My name is Jackie Kaslow, I am a doctoral student at T.H. Chan Harvard School of Public Health and an employee at the UC Davis Center for Health Policy and Research in Sacramento.

I work with Dr. Elisa Tong, Assistant Professor, Internal Medicine, on a statewide tobacco project: CA Quits and am conducting formative research on the project as part of my dissertation work.

In a previous initiative co-led by Dr. Tong: Medicaid Incentives to Quit Smoking (MIQS 2010-2014), her team had some limited contact with at Shasta County Public Health regarding providing some cessation support materials.

In a nutshell, I am hoping to learn more about your agency's processes for prioritizing health behaviors such as smoking and then their views on working in collaborative initiatives to address identified priorities. I will use qualitative findings to identify potential nuances from the field which are not necessarily apparent in the data or county profiles. My goal is to identify the strengths, weaknesses or any needed alterations to the CA Quits project so that the team is positioned to deliver it successfully – which means working with public health departments in way that meets their needs, and the project's objectives.

My hope is that you might consider speaking with me as a key informant for no more than 45 minutes. Public health departments are an important group that CA Quits is expected to work with so the opportunity to speak with you would be a privilege.

Thank you in advance for considering the request. I have attached the CA Quits abstract and am happy to send additional information if it is helpful.

Best regards,
Jackie (Angela) Kaslow, DrPHc 2018
Operations Director, CA Quits Project
916-734-0136

Appendix 7: Key Informant Interviews Codebook – Snapshot

KEY INFORMANT INTERVIEW CODE TABLE (Step two in assessment of CA Quits program components)										
INCENTIVES/DISINCENTIVES:					COLLECTIVE IMPACT (FIVE COMPONENTS): 1. Common Agenda (shared vision, comon understanding, joint solutions, agreed-upon actions) 2. Shared measurement Systems (data, alignment, accountability, learning - successes/ failures) 3. Mutually Reinforcing Activities (coordinated activities, plan of action) 4. Continuous Communication (interests treated fairly, objective decision making) 5. Backbone Support Organization (separate organization, staff and special skills)					
MISSION	**PRIORITIES**	**MANDATES**	**METRICS**	**AUTHORITY/ REGULATORS**	**COLLABORATIONS**					**Notable Comments**
Provide quality healthcare to folks who are underserved, as well as, folks who are on government programs. One of the thing that I always thought I wanted to do while I was in school was to give back to the community. It's something they actually actively promote. Serving the marginalized groups and folks who are under	Yeah, yeah. When we talk about culture and it's impact on health, we, sort of, the big elephant in the room, is the health disparities question, and geographies. The California Wellness Foundation, oh my gosh, it's kinda escaped me right now. But they did this large project on your zip code. The Wellness Foundation? California Wellness?	Where we look at geography. Where we're looking at income. We're looking at education level and poverty. We're looking at inequality. We're looking at nutritional access. Access to nutritional healthy foods	So anyway, their study was on zip codes. They proposed, they [inaudible 00:12:55] that zip codes were more, were a better predictor of your health status, then genetic code. Zip code is really, is really the social determinant of Health	I would say about maybe 20 years ago, the government had a shift. So CMS had a shift. Instead of orchestrating the Medicaid program, and the Medicare program on their own, they decided to vendor it out to help insurance companies	We have all sorts of community partners. We attend community collaboration meetings. Some of them, in fact, are held by us. We put on those community collaboration meetings and my colleague will speak a little bit better to	So, that's also something we want to have a deeper dive on and have a good understanding of how some of those data points. And how we get to some of that.	Kinda coming out of that, a mutually beneficial goal that we're both actively working toward, but if you take a look a little closer at that, or have a little deeper dive, we want to make sure, to obtain that goal, we are looking at all the different populations.		And also the major thing is sharing resources, then ... we're...It's a win-win situation.	And there are things that can be done to prevent that and so in this particular context we, we were very interested in looking at under utilization and in fact it was true that the folks that ... and it was significantly statistically significant the folks that did not show for these appointments that they had previously requested interpreters. Ended
We started out and still are primarily a Medicaid organization. These ... Our members are basically, like I mentioned, underserved communities. Maybe		We have a large Arabic speaking population and then we also want to connect it to Ramadan. Ramadan is like 60 days, or maybe, I think it's 30 days ...A period of abstaining	There are lots of things that are in play, and so, when we do our daily work, these are some of the things that inform, the program that we want to	We have a contract with the county to provide services to Medicaid recipients	We have sorts of collaborations with schools, where we go to a certain school and it's a targeted for that particular	Even before we really designed the program, we really have to look at the outcomes as well.	So that's why when I was doing my data analysis I looked at not just Molina members, but who are they? What are their age ranges? What languages			